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MANUEL DE FALLA'S *CUATRO PIEZAS ESPAÑOLAS*: COMBINATIONS AND TRANSFORMATIONS OF THE SPANISH FOLK MODES

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Dedication

To Mom and Dad

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Acknowledgment is made to the publisher for the use of the musical examples. Credit is given as follows: Manuel de Falla: *Cuatro Piezas Españoles* [public domain]. Piano score originally published by Durand, 1909. The revised edition (Manuel de Falla Ediciones, S. L., Madrid, 2001) was used for this treatise.

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The intention of this study is to demonstrate how special modal and tonal constructions and their interactions in *Cuatro Piezas Españoles* (1906-1909) are basic in the integration of Manuel de Falla's musical language. His modal techniques represent a significant contribution to the rebirth of Spanish nationalism. His use of modal variants, which are derived from his native folk-music sources, is the basis for expanding his musical language into a large-scale system. In this work, Falla employs various means of transforming the modes into a modernistic idiom.

Falla' *Cuatro Piezas Españoles* is considered his first major piano work, in which he arrived at a technical command and maturity in both compositional and pianistic practices. He had begun composing *Cuatro Piezas Españoles* in 1906 in Madrid and completed them in Paris. The four pieces, "Aragonesa," "Cubana," "Montañesa," and

"Andaluza," were published by Durand in 1909. Although Falla wrote few piano works in general, *Cuatro Piezas Españoles* is exemplary of his development from Romantic tonality to the modalities of Spanish folk music. Thus, the study of *Cuatro Piezas Españoles* seems to be an ideal compositional source for evaluating Falla's compositional process during the period of integration of his musical language. This treatise demonstrates how special modal and tonal constructions and their synthesis basic in the formulation and interoperation of the composer's means of expression.

In the introductory chapter, I explored Falla's musical language, focusing on the historical background, modal constrictions in Spanish folk music, and the influence of Debussy. Chapters two to five contain the analyses of each piece of *Cuatro Piezas Españoles*, respectively. The result of the study is summarized in the conclusion.

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Chapter 1: Falla's Musical Language: Introduction

The intention of this study is to demonstrate how special modal and tonal constructions and their interactions in *Cuatro Piezas Españoles* (1906-1909) are basic in the integration of Manuel de Falla's musical language. His modal techniques represent a significant contribution to the rebirth of Spanish nationalism. Falla's compositional career reveals an evolution from nineteenth-century Romanticism to Nationalism and Neo-Classicism, and he also researched the historical past and sought a cosmopolitan style. Furthermore, he was to absorb the influence of Debussy's Impressionistic style and move beyond it.

Falla's musical development can be divided into several periods: youth (1896-1904); consolidation of musical language (1905-1914); Andalusian (1915-1919); post-Nationalist (1920-1926); and search for universal synthesis (1927-1946).[1] Falla's experience and absorption of folk modalities occurred primarily between 1905 and 1914. *Cuatro Piezas Españoles* was among the first to be composed during this period.

His use of modal variants, which are derived from his native folk-music sources, is the basis for expanding his musical language into a large-scale system. In this work, Falla employs various means of transforming the modes into a modernistic idiom. The compositional process employed in this transformation includes the permutation (by rotation) of the modal components, extension of the modal structure, and perhaps most significantly the combination (and also juxtaposition) of the modes to produce is polymodal chromaticism. During this period from 1905 on, he experienced new

[1]Nancy Lee Harper, *Manuel de Falla: His Life and Music* (Lanham, Maryland: The Scarecrow Press, Inc., 2005), Part III, Chapters 16-20.

compositional techniques based on traditional tonality, modal tonality and non-diatonic modal serialism. Eventually, experiment allowed Falla to reach a concise and economic compositional style in a more contemporary context.

Falla's *Cuatro Piezas Españoles* is considered his first major piano work, in which he arrived at a technical command and maturity in both compositional and pianistic practices. This work points to his future mastery as seen in the *Noches en los Jardines de España* (Nights in the Gardens of Spain) and *Fantasia Bætica*. Falla began composing *Cuatro Piezas Españoles* in 1906 in Madrid, and he completed them in Paris. The set was first performed in public by the Spanish pianist Ricardo Viñes at the Société Nationale de Musique in Paris on March 27 in the same year. In the same year, the four pieces: "Aragonesa," "Cubana," "Montañesa," and "Andaluza," were also published by Durand. Dedicated to Isaac Albéniz (1860-1909), who died in the year of their publication, the *Piezas* clearly resemble some stylistic aspects of Albéniz's *Iberia*. Like *Iberia*, each of the four pieces contains picturesque descriptions of Spanish scenes and landscapes, either through geography or genre.[2] Falla explained his idea in *Cuatro Piezas Españoles*, "my principal idea in the components was to express musically the soul and the atmosphere of each of the regions indicated by their respective titles"[3] Through rhythm, the melodic lines, and the characteristic ornaments, he evokes the soul of Spain.

Although Falla wrote few piano works in general, *Cuatro Piezas Españoles* is exemplary of his development from Romantic tonality to the modalities of Spanish folk

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[2] Albéniz reached his artistic culmination in the last work that he completed before his death, the "twelve new impressions" for piano, entitled *Iberia*, published in four books from 1906 to 1909. For details about this work, see Gilbert Chase, *The Music of Spain* (New York: Dover, 1959) pp. 155-159. For a brief discussion of the similarity between *Iberia* and *Cuatro Piezas Españoles*, see Carol A. Hess, *Sacred Passions: The Life and Music of Manuel de Falla* (Oxford: Oxford University Press, 2005) pp. 46-49; and Ronald Crichton, *Falla: BBC Music Guides* (London: British Broadcasting Corporation, 1982), p. 22.

[3] "Mon idée principale en les composant a été d'exprimer musicalement l'âme et l'atmosphère de chacune des régions indiquées par leurs titres respectifs." See Jean Michel Nectoux, "Lorsque Falla analyse ses *Quatre Pièces Españoles*," in *Schweizerische Musikzeitung-Revue Musicale Suisse*Vol. 3. (May-June 1977): 154.

music. Thus, the study of *Cuatro Piezas Españoles* seems to be an ideal compositional source for evaluating Falla's compositional process during the period of integration of his musical language. This treatise demonstrates how special modal and tonal constructions and their syntheses are basic in the formulation and interpretation of the composer's means of expression.

Historical Background

In the late nineteenth and early twentieth centuries, a reaction against the domination of German music, especially the ultra-chromaticism of the Wagner-Strauss period, gradually enabled non-German composers to establish distinctive national or regional styles from their own national identities and from earlier musical traditions. Antokoletz points out that the coexisting movements eventually developed into two different trends:

> Composers of various national backgrounds, in search of their cultural identities, began to explore the modalities of their native folk music as the basis for developing musical styles very different from those within the German late-Romantic musical orbit. These divergent points of origin --the ultra-chromaticism of German late-Romantic music and the pentatonic-diatonic modalities of folk music-- led to two extremes of tonal orientation in the first decades of the 20th century. One extreme was manifested in the free-atonal idiom of the Vienna Schoenberg circle, the other in the modal-tonal idiom of such non-Germanic composers as Janáček, Bartók, Kodály, Stravinsky, and others from both Eastern and Western Europe. Among the latter, English and Spanish composers figure prominently.[4]

[4] Elliott Antokoletz, "Spanish folk modes and their transformations in the music of early twentieth-century Spanish composers," in *Encomium musicae: Essays in memory of Robert J. Snow* (Hillsdale, U.S.A.: Pendragon Press, 2002): 529.

The result of these movements led to a polymodal chromatic treatment of melody and harmony that first embroidered, then began to replace the traditional harmonic system in multiplicity of new modal and symmetrical scalar types.

The nationalist movement in Spain first emerged in the early 1830s as a reaction against the virtual monopoly by Italian composers and singers over the lyrical theaters of Spain. The authentic aspects began in 1904 through the research and teachings of the musicologist/composer Felipe Pedrell (1841-1922). His publication entitled *Cancionero musical popular español* (1918-1922) is one of his most important Spanish folk song collections. Pedrell's nationalistic interests, which contributed extensively to the development of contemporary Spanish art music, were disseminated by his pupils: the Catalan composers Isaac Albéniz (1860-1909), Enrique Granados (1867-1916), and the Andalusian composer Manuel de Falla (1876-1946).

Influence of Debussy

The influence of Debussy and other French musicians, and Falla's observation of their fascination with Spanish idioms, gave Falla a new perspective toward his homeland. Debussy's harmonic language[5], based on modality, pentatonicism, and the wholetone scale, is also evident in Falla's works composed during his stay in Paris and in those

[5] For a more detailed discussion of the musical language of Debussy and Impressionism, see Christopher Palmer, *Impressionism in Music* (London: Hutchinson University Library, 1973), Introduction. Gilbert Chase points out that the many of the compositional devices and procedures associated with Impressionism were commonplaces of traditional Andalusian idiom, such as tonal ambiguity resulting from numerous false relations and from such devices as modulating to the key a minor third lower in final cadences; systematic use of successive fifths; use of unorthodox chords—for example, the open strings of the guitar form (E-A-D-G-B-E). For more details, see Chase's "Falla's Music for Piano Solo" *The Chesterian*, 148 (January-March 1940): 41-46.

works composed after his return to Madrid. By a thorough study of Debussy's "Spanish music", Falla discovered the possibility of evoking the Spanish atmosphere. He did this by means of poetic suggestion, without any literal quotation. And then went a step further to create his own musical language. As Burnett James says of Falla and Debussy in his study,

> Debussy's 'impressionist' technique came as a liberating force into a world still dominated by German and Italian musical aesthetics. But Falla did not rest there. Debussy made his own solution, and it was a manifestation of major genius; but Falla, being another musician from another country, had a different task in hand, another road to follow, even though he was helped on his way by the French master.[6]

Modal Constructions in Spanish Folk Music

Many different modes are found in Spanish folk music. The most common are those that comprise the variants of the Phrygian-modes a modal family so essential to flamenco music. The set of E-modes can be distinguished by the lower modal tetrachord in the Phrygian-modal variants.[7]

The following tetrachordal/pentachordal constructions reveal the various E-mode types. Tetrachord E-F-G-A, is a diatonic form of the Phrygian mode. Tetrachord E-F-G♯-A, is an Arab type, which contains an augmented second, generally used in Catalonia and Andalusia. Pentachord E-F-G-G♯-A, is a form that alternates normal- and raised- third

[6] Burnett James, *Manuel de Falla and the Spanish Musical Renaissance* (London: Victor Gollancz Ltd., 1979), p. 77.

[7] García Matos explored thoroughly the Spanish folk modalities and discussed in his book entitled *Lirica popular de la Alta Extremadura* (Madrid: Union musical español, 1944), esp. pp. 194-205. For a summation of the various modal types of Spanish folk music, see Antokoletz, "Spanish folk modes and their transformations in the music of early twentieth-century Spanish composers": 531.

degrees. This is commonly found in Andalusian folk music. The segment E-F-F♯-G-G♯-A, found in Andalusia, Extremadura, Castile, and other regions contains fluctuating normal- and raised- second degrees that result in an entirely chromatic construction. Antokoletz identifies the various combinations of these E-modal variants that were generally employed in Spanish art music of the twentieth century and eventually transformed into a more chromatic contemporary idiom:

> The interactions of two or more of these E-modal variants, either successively or in simultaneous polymodal-chromatic combination, are essential to the sense of modal transformation and harmonic progression in Spanish art music of the twentieth century. Other modal types in this music often tend to result primarily from rotations of these basic modal forms or from hybrid combinations of their various lower and upper tetrachords. For instance, in addition to the combination of the two Phrygian tetrachords (E-F-G-A/B-C-D-E), which produce the normal diatonic Phrygian mode, the influence of flamenco is manifested in such hybrid combinations as two Arab tetrachords (E-F-G♯-A/B-C-D♯-E), Gypsy and Arab tetrachords (E-F♯-G-A♯/ B-C-D♯-E), and Arab and Phrygian tetrachords (E-F-G♯-A/B-C-D-E), as well as major and minor types.[8]

The E-modal variants and their transposition and combination enable the formation of polymodal chromaticism. Modal variants are common to the folk idiom. Falla's ability to manipulate the modal combinations in their successive unfolding of modal variants captures the Andalusian atmosphere by means of characteristic rhythms and folk melodic features as exemplified in *Cuatro Piezas Españoles*.

[8] Ibid.

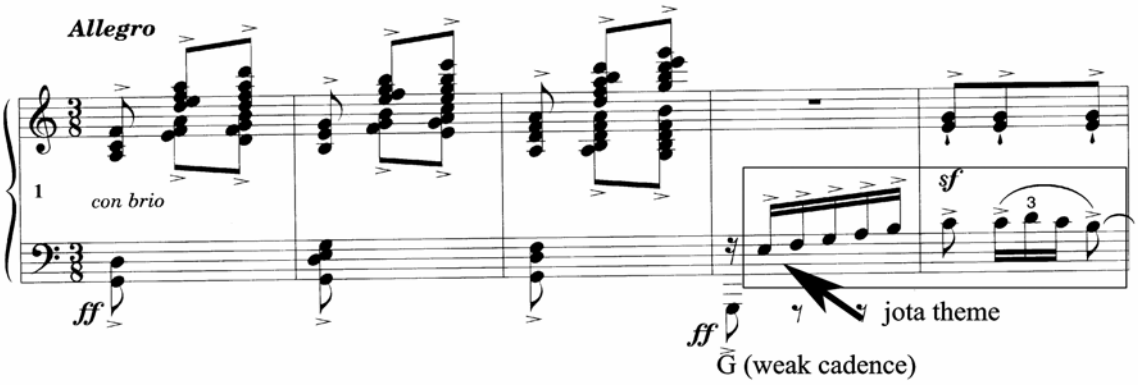
Chapter 2: Aragonesa

The first piece of *Cuatro Piezas Españoles*, "Aragonesa," displays the energetic character of a folk theme by applying the *jota*[9] rhythm in the descending triplet-figure which appears fairly often throughout the piece. The "Aragonesa" reveals a straightforward formal structure (Table 1). The thematic materials use the *jota* theme and a copla[10] as basis of the binary form with a fading Coda.

Table 1: "Aragonesa." Form

	Introduction	A(*jota*)	B(copla)	A′	B′	Coda
mm.	1-3	4-42	43-70	70-106	107-133	134-155

Example 1: "Aragonesa" (mm. 1-5).



[9] The *jota* is found in many regions of Spain, the best known is from Aragon. The steps of *jota* are rapid, strong, and energetic. As Chase explains, "Strongly executed pirouettes and turns are frequent. Facing each other, with castanets held out at arm's length, the dancers swing outward first on one leg and then the other." For details about the *jota* of Aragon, see Chase, *The Music of Spain*, pp. 252-253.

[10] Spanish dances are generally accompanied by several coplas, which is stanzas, couplets, or verses.

The opening three-measure introduction uses G-D as pedal point and on top with extended supertertian-diatonic chords of white keys. The collection in neutral tonal terms can be presented as a segment of cycles of fifths (F-C-G-D-A-E-B; see Example 1). G is the suggested dominant of C that moves linearly to the weak cadence (at m. 4), based on the second inversion of the tonic chord. The harmonic support establishes C major throughout but with chromatic embellishment.

SECTION A

The entire A section is constructed by a compound parallel period (antecedent-consequent relation) and a thematic extension (Table 2). The first phrase (mm. 4-19) is based on the white key-diatonic scale. However, the *jota* theme in the bass clef may also suggest the modality of G-Mixolydian by ending the phrase on G (m. 11). But this is ambiguous, and really establishes a semi cadence in C. The C tonality is confirmed by the prominence of the vii chord (at mm. 7 and 9). The adjacent chords seem simply to provide chromatic embellishment of the chord.

Table 2: "Aragonesa." Section A. Outline.

compound parallel period

	antecedent		consequent		extension
mm.	4-11	12-19	20-27	28-35	36-42
tonal center	G-Mixolydian/C-major		B-Mixolydian/E-major		

Thereafter, in the second part (mm. 12-19), the *jota* theme shifts to the soprano voice and the texture becomes more polyphonic. However, the descending triplet this time ends the phrase from A to G♯ (at m. 19) instead of G. This produces a sense of modulation from the basic C major to A minor. The melodic/thematic note, G♯ (instead of G) plays a different role. The G was the fifth of the tonic chord (C), whereas the G♯ is the third of the suggested dominant of A minor (E). However, the next *jota* statement is transposed, so that the E-dominant harmony becomes the tonic. Thus, the G in C and the G♯ in E, although they have different positions in their respective tonic areas (i.e., C and E), play analogous roles. They are both part of a tonic chord. What is striking about this sequence of *jota* ideas is that what seemed traditional at first, i.e., C major to A minor, is actually disrupted by a non-diatonic relation, C major to E major. This sequence of *jota* ideas produces instability by going from C to the dominant of A, but turning that (E) into a new tonic,

This disrupting, non-diatonic modulation is a focal point for what first appeared to be coloristic embellishment of the C-major tonality. We have simply a chromatically descending sequence (at mm. 6-11); however, in respect of the focal point (mm. 19-20), the embellished harmonies are adequate. The B-major chord (at m. 6) foreshadows E as its dominant. On the other hand, we have an ambiguous A minor/major harmony (at m. 8), which prefigures the expected resolution to A (at m. 19).

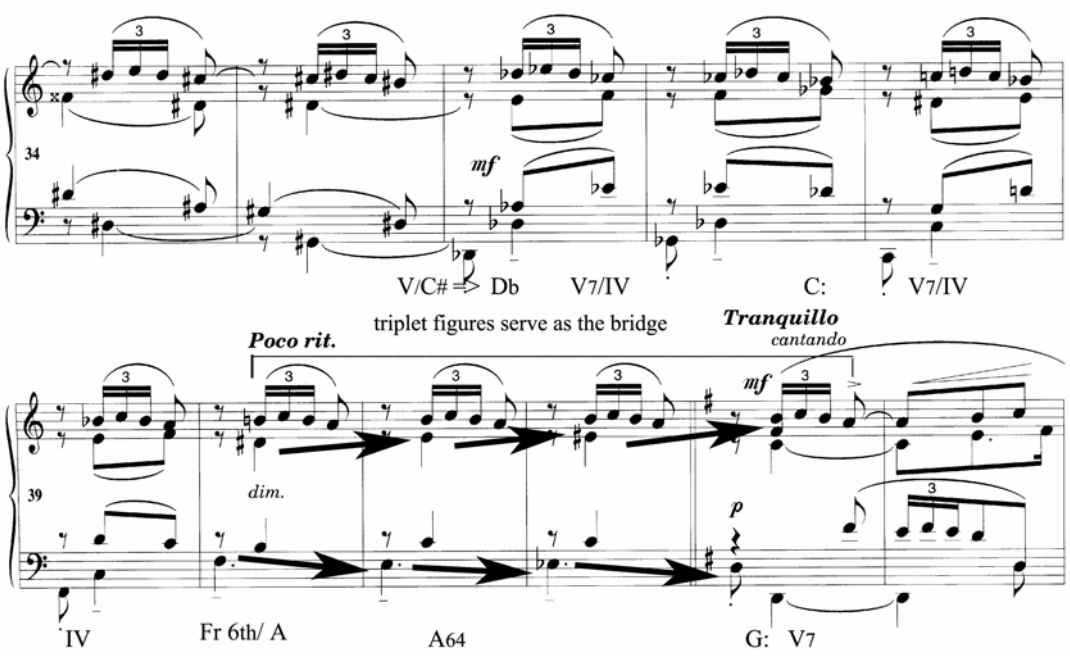
The second phrase (mm. 20-35) is identical with the first phrase (mm. 4-18) but in E-major tonality instead of C. Moreover, the *jota* theme in the bass clef may also suggest the modality of B-Mixolydian with the melodic ending on B (at m. 27). With anticipation of the progression in the point for cadential G then G♯, the descending triplet this time ends the phrase from C♯ to B♯ (at m. 35) instead of B. This produces a sense of modulation from the basic E major to either C♯ minor or C♯ major. After the compound

parallel period (mm. 4-35) transfers the tonal center from G-Mixolydian/C-major to B-Mixolydian/E-major, the *jota* theme discontinues modulating to the dominant of C♯ minor/major (G♯). Nevertheless, the harmony seems to result from the dominant of C♯ minor/major to tonic of C♯, but spelled enharmonically in D♭ (at m. 36).

The last fragment of the A section (mm. 36-39) is the extension of the compound parallel period, formed as two parallel statements, each of them containing a two-measure descending triplet figuration. The harmonic progression seems to be simply V7/IV to IV in D♭ (mm. 36-37) and then directly a half-step down, V7/IV to IV in C (mm. 36-37). However, in this passing chromatic progression, in which the dominant-seventh element is then omitted in the remaining descent, G♭ F E E♭ D, the cadential arrival re-establishes what is actually dominant to tonic in G. (see Example 2). In retrospect, the V/IV to IV idea is really dominant to tonic in the local sequence of tonalities. The significance of this reinterpretation (i.e., V-I instead of V/IV-IV) is in the speed of the harmonic rhythm. Given the Spanish dance character, such motion is part of the changing mood of harmony, mode, etc.

Thus, the triplet figures in the soprano voice serve as the bridge from the end of B-Mixolydian/E-major sentence to two descending parallel statements (mm. 36-37 and 38-39), followed by the three-measure contrary motion in the middle voice (D♯-E-E♯-F♯) and bass line (F-E-E♭) which leads the tonic to the dominant of G (at m. 43). On the other hand, the triplet figures repeat three times in the top voice (mm. 40-42) and anticipate the opening of section B by transferring the ending note A from measure 40 as the root of the French-sixth of A and then transforming the A as the fifth of the dominant-seventh chord in G. Hence, single tones have multiple harmonic meanings and participate in a chameleon-like fabric.

Example 2: “Aragonesa” (mm. 34-43).



SECTION B

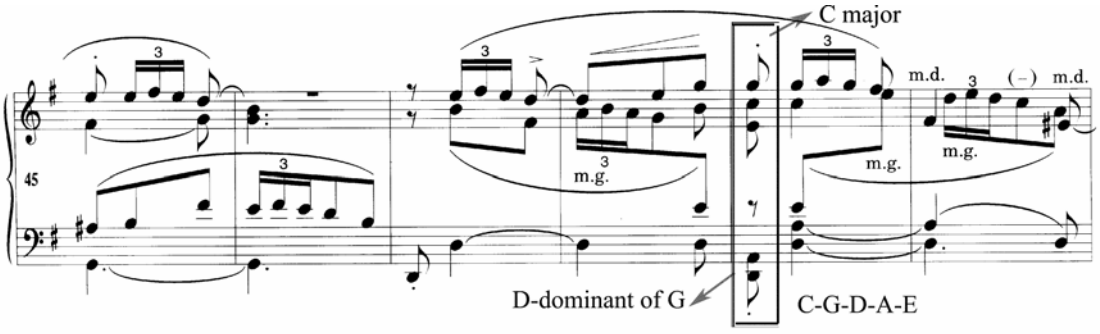
The melodic element which is constructed as two four-measure units (antecedent-consequent relation), occurs four times in section B (each of them starts at mm. 43, 51, 59, and 67, see Table 3).

Table 3: “Aragonesa.” Section B. Outline.

thematic entrance	1	2	3	4
mm.	43-50	51-58	59-66	67-70

The strong downbeat, D, in the opening of the B section, suggests the dominant of G based on the resolution to the tonic at the cadence of the first half of the period in each thematic statement (mm. 45, 54, 62 and 69). However, the melodic element lacks a strong cadence throughout the B section, which creates melodic continuity and tonal ambiguity. Furthermore, the first chord (at m. 49) recalls the similar compositional technique used in the introduction. The segment of cycle of fifth (C-G-D-A-E) may foreshadow the pan-tonality of the middle section (Example 3). This cyclic-interval transformation of the diatonic modality contributes to the tonal ambiguity, even modality. However, at this point, perhaps some harmonic duality may also be interpreted (i.e., C major and D-dominant of G). This suggests both cyclic interval construction and bitonality. The bitonal relation (C major/G major) is such that it presents the cyclic interval continuous link between them. The harmonic motion liners toward to C major in the second part of the second phrase (mm. 55-58) and establish a semi-cadence in the subdominant. The harmonic progression ascertains the G major tonality, but embroiders it with various chromatic notes. There is no actual ending of the B section; the opening *jota* theme in the top voice enters (at m.70) and glides into the section A′ whereas the bass line still persists with the phrase of section B.

Example 3: “Aragonesa” (mm. 45-50).



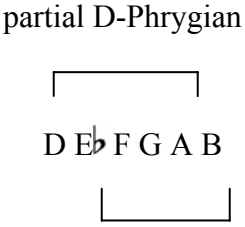
SECTION A′

The following section (mm. 70-106) is based on the returning *jota* theme of section A. It is formed by a pair of parallel phrases (mm. 70-85) and each of them contains an antecedent-consequent-relation phrase (mm. 70-77 and 78-85), three identical partial statements of the *jota* theme, and transition (Table 4). Nonetheless, the tonal area is more ambiguous and involved with various shifting modal constructions.

Table 4: "Aragonesa." Section A′. Outline.

	parallel period		stretto			transition
mm.	70-77	78-85	86-89	90-93	94-97	98-106

Figure 1: Modal Overlapping (mm. 70-74).



In the first phrase (mm. 70-77), the antecedent (mm. 70-74) is framed by a partial D-Phrygian (D-E♭-F-G-A), extended and overlapped with Wholetone-1 (WT-1) transformation (see Figure 1 and Example 4).[11] However, the consequent (mm. 75-77) is

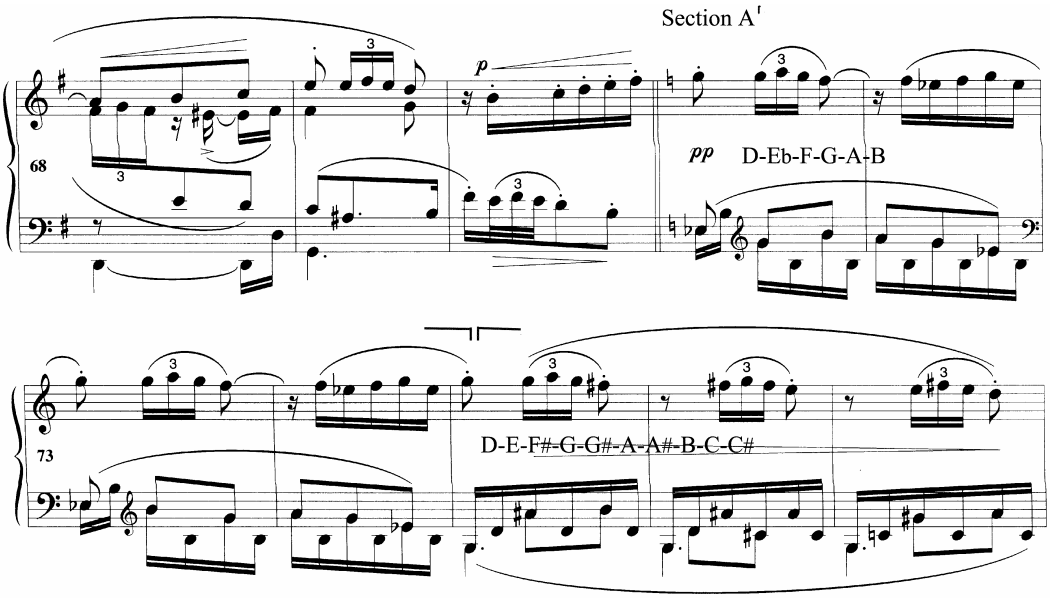
[11] Wholetone scale: a six-note scale in which each note is separated by the interval of a whole step. There are two wholetone scales. We will assign Wholetone-0 (WT-0) to C-D-E-F♯-G♯-A♯-C and , Wholetone-1 (WT-1)to C♯-D♯-F-G-A-B-C♯.

constructed by the completed D major mode with chromatic embellishing tones (C, F♯, and G♯), which are the fragment of the WT-0 collection (Table 5 and Example 4).

Table 5: "Aragonesa." The Compound Modal Scale (mm. 75-77).

unfolding scale	D	E	F♯	G	G♯	A	A♯	B	C	C♯
D major mode	D	E	F♯	G		A		B		C♯
Wholetone-0	D	E	F♯		G♯		A♯	B	C	

Example 4: "Aragonesa" (mm. 68-77).



Hence, D-Phrygian gets complicated by the infusion of WT-0. The D-Phrygian and D major modes are chromatically complementary. The intersection of all these modes and the infusion of two wholetone modes into D-Phrygian and D major scales create the polymodal overlapping effect.

In the second phrase (mm. 78-85), the antecedent (mm. 78-82) is constructed by a polymodal combination based on two modal-variants, D Phrygian-Arab mode (D-E♭-F-G-A-B♭-C♯-D) and a WT-1 scale (C♯-E♭-F-G-A-[ ][12]) could be extracted from it. However, the consequent (mm. 83-85) is constructed by the completed D Phrygian-Arab with chromatic embellishing tones (B and G♯). As a result, the WT-1 is also completed (Table 6). In summary, two wholetone collections serve as a common-chord function filling in the D Phrygian-Arab mode and D major. What seemed chromatic at first, i.e., unfolding a compassed hybrid collection, is essentially hidden by the wholetone scales that fill in the diatonic scales.

Table 6: "Aragonesa." The Compound Modal Scale (mm. 83-85).

unfolding scale	D	E♭	F	G	G♯	A	B♭	B	C♯
Wholetone-1		E♭	F	G		A		B	C♯
D Phrygian-Arab	D	E♭	F	G		A	B♭		C♯

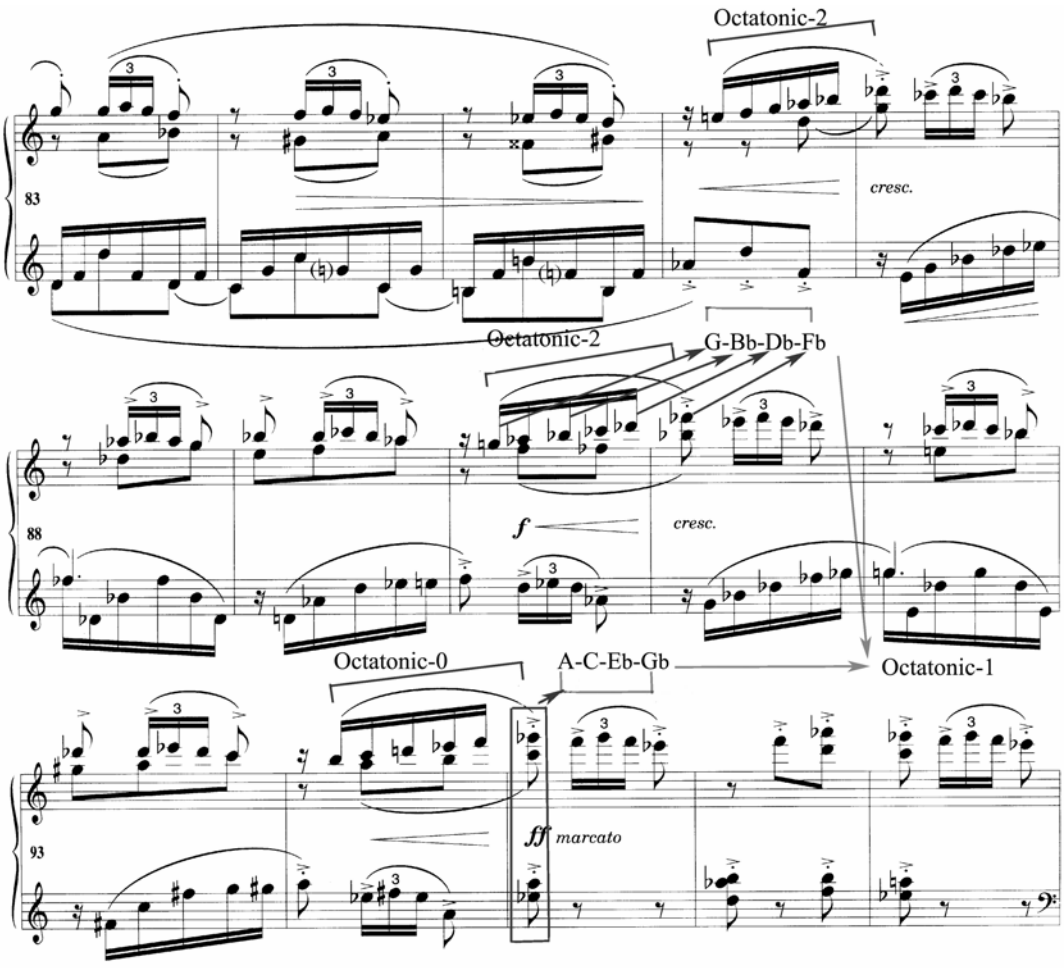
The stretto effect (at mm. 86-97) is used to create tonal complexity; moreover, each of the entrances (at mm. 86, 90, and 94) represents different modal constructions (see Example 5). The three stretto statements unfold two of the three different octatonic collections successively. The first two stretto statements are based on Octatonic-2[13], which unfold as rotations E-F-G-A♭-B♭-C♭-D♭-D♮ (mm. 86-89) and G-A♭-B♭-C♭-D♭-D♮-F♭-F♮ (mm. 90-93). The third stretto statement shifts to Octatonic-0, B-C-D-E♭-F-G♭-A♭-

[12] A [ ] symbolizes the missing note in the collection.

[13] Octatonic scale: an eight-note scale in which each note is separated by alternating intervals of a whole step and a half step. There are three octatonic scales based on interval 2-1-2-1-2-1-2-1: C-D-E♭-F-G♭-A♭-A♮-B =Octatonic-0, C♯-D♯-E-F♯-G-A-B♭-C =Octatonic-1, D-E-F♯-G♯-A♯-C =Octatonic-2. See also Elliot Antokoletz, *Twentieth-Century Music* (Englewood Cliffs, NJ: Prentice Hall Inc., 1992), p. 232.

A♮ (mm. 94-97). A sense of contrast (or change) in the progression from Octatonic-2 to Octatonic-0 is produced by the explicit local articulations of a basic octatonic substructure, namely the diminished-seventh chord (or interval-3 cycle).

Example 5: "Aragonesa" (mm. 83-97).



Of the two diminished-seventh chords that comprise a given octatonic collection, one can be shown to be common between two of the three octatonic transpositions. While a smooth transition from one octatonic collection to another might be achieved by

means of articulating the one common diminished-seventh chord between them, the opposite (that is, contrast) might also be achieved by articulating the one non-common diminished-seventh chord between them.

The latter (contrast) appears to be the case in this overall octatonic progression. In the second stretto, the arpeggiated diminished-seventh chord G-B♭-D♭-F♭ (at m. 90) belongs to the larger Octatonic-2 transposition but not the Octonic-0 transposition that follows. Conversely, the chordal diminished-seventh chord A-C-E♭-G♭ (at m. 95, first beat) against the Octatonic-0 scale belongs to the larger Octatonic-0 content, but not the preceding Octatonic-2 transposition. These two nonadjacent arpeggiated diminished-seventh chords, G-B♭-D♭-F♭ and A-C-E♭-G♭, which are mutually exclusive with regard to their respective octatonic collections, are thereby essential in articulating the difference between the larger octatonic pitch collections. It is significant, furthermore, that these two arpeggiated diminished-seventh chords, together, imply the presence of the missing Octatonic-1 collection, D♭-E♭-F♭-G♭-G-A-B♭-C. This Octatonic-1 implication contributes to the developmental sense of the entire passage, i.e., to the sense of octatonic contrast, motion, and change analogous to diatonic modulation in the traditional major-minor scale system.

On another matter, further modulatory preparation is evident. That is to say, the passing or neighbor notes in the preceding section may seem foreign to the melody or harmonic context at first. However, they anticipate the following tonal/modal area. For instance, E♭ in the first triplet (at m. 90) functions as a "dissonant" element against the Octatonic-2 collection (E-F-G-A♭-B♭-C♭-D♭-D♮), but will become consonant in the following passage (at m.94) when it recurs in the context of Octatonic-0 (B-C-D-E♭-F-G♭-A♭-A♮).

One other detail seems significant in this passage. The rotation of Octatonic-2 from E-F-G-A♭-B♭-C♭-D♭-D♮ (mm. 86-89) to G-A♭-B♭-C♭-D♭-D♮-F♭-F♮ (mm. 90-93) is linked by the arpeggiated form of the diminished-seventh chord, G-B♭-D♭-F♭. This at least creates a smooth connection within the Octatonic-2 context, i.e., before the change to a new octatonic collection.

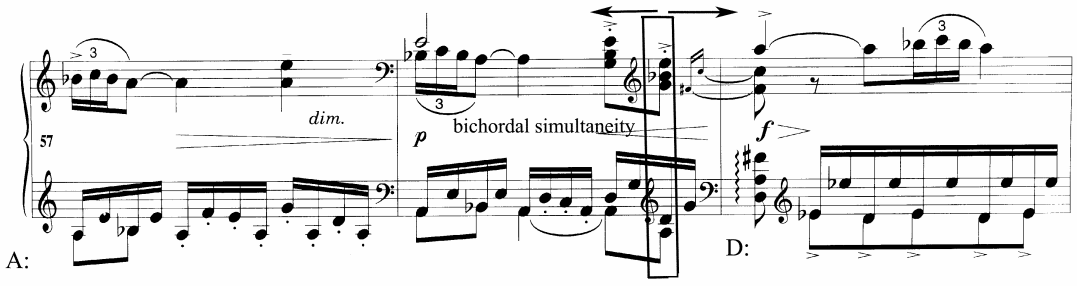
In this stretto section (mm. 86-97), the diminished-seventh chords play the role of common chord, shifting and filling in the octatonic collections. Thus, the manipulations of two wholetone scales in D-diatonic scales (mm. 70-85) and the diminished-seventh chords in octatonic collections is using the same idea of "common chord" concept in the compositional process. Each of the stretto entrances is a third degree higher than the previous one, which coincidently match the dynamic level building up and finally arrive at *ff marcato* (at m. 95). All the modal constructions being used in this section unfolds an entirely chromatic scale and creates the intense and colorful characteristic of Spanish music.

The modal tonalities contribute to the arch-shape of this piece by starting out with the simple G-Mixolydian/C-major relation in sections A and B. The modulatory procedure of the following large middle section increases the "modal" (octatonic, diatonic) density by shifting, combining, and articulating various collections and tonalities before returning to the simpler modal-tonality of the opening. More specifically, the modal density establishes a polymodal chromatic context so characteristic of the Spanish composers such as Albéniz, Granados and Falla.

The next four-measures (mm. 98-102, see Example 6) are the repeat of the previous statement in terms of the melodic idea. However, two previously used diminished-seventh chords (A-C-E♭-G♭ at m. 99 and C♭-D-F-A♭ at m. 100) still anticipate and recall Octatonic-0, A♭ in the dominant-seventh chord, A♭-C-E♭-G♭ (at m. 101),

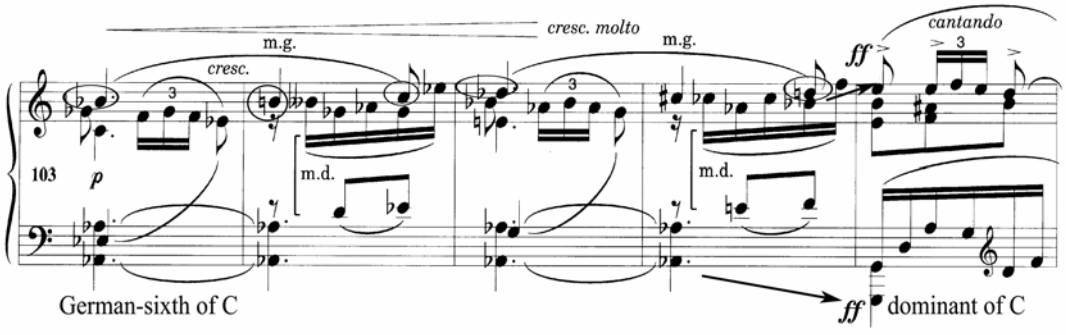
replaces A of the diminished-seventh chord, A-C-E♭-G♭ (from m. 97), and the harmonic progression seems to be turned into tonic-dominant in A♭ (mm. 101-102).

Example 6: “Aragonesa” (mm. 98-102).



A♭ serves as the pedal point in the bass voice (at mm. 103-106, see Example 7), corresponding with the ascending top voice (B♭-B♮-C-D♭-D♮), and all together move in contrary motion to G and E (at m. 107). Moreover, the first chord (at m. 103) and its harmonic prolongation provide the function of a German-sixth of C, then resolve to the dominant chord of C in the bass (at m. 107) is bichordal simultaneity, E-G-B and G-B-D-F.

Example 7: “Aragonesa” (mm. 103-107).



What is significant about the A♭-seventh chord (A♭-C-E♭-G♭) is that it cadences as the tonic triad of A♭ (at m.101) and then changes its meaning into the German-sixth of C (at m. 103). This reinterpretation of the single note (A♭) serves as a link from the compounded modal area, i.e., wholetone, D-Phrygian, octatonic in section A′ back to section B′. On the other hand, the melodic ending of the previous two statements (mm. 94-97 and 98-102), i.e., the triplet figure, repeats one more time in the following measure (m. 103). However, this figure then shifts up a major-third and ends on G (at m. 105). This melodic statement brings back the original modality of G-Mixolydian of the very opening (mm. 4 ff) in the following section (m. 107), which is confirmed by ending the phrase on G (at m. 113). Utilizing the same melodic line and triplet figure as a linkage to transit into another section is similar to the techniques being used earlier in the transition from section A to B.

SECTION B′

The melodic idea (based on several motivic elements) from section B, in conjunction with the return of the section A *jota* theme (mm. 109 ff), comprises section B′. The B-section melodic idea which is organized as two four-measure units (antecedent-consequent relation) appears four times (mm. 107, 115, 123, and 131), and is superimposed with the partial statement of section A (mm. 109, 117, 121, 125, and 129). Nonetheless, this time the B-section melody starts on E instead of B, which may prefigure the return of the A-section melody which begins with E in the corresponding position. Moreover, the interaction between these two juxtaposed returning sections produces a polyphonic texture and tonal ambiguity. The tonality in this section is based on the combination of G-Mixolydian and C-major, which is the same as the opening

section A. The harmonic support establishes C major throughout, but with chromatic embellishment. However, the *jota* theme from section A may also suggest the modality of G-Mixolydian by phrase ending on G (at m. 113), though locally Phrygianized briefly by the flat-second degree. Conversely, the polyphonic setting and interface between these two melodic ideas weakens the cadences that appear in both returning A and B sections (i.e., A-section melodic statement ends at m. 113, B-section melodic statement ends at m. 121), which creates the continuity, modal density, and thematic combinations in this recapitulated section. Thus far, the harmonic progression by some means follows the outline of the B section; however, section B′ ends on the second inversion of the submediant triad in C (m. 133) instead of the tonic, and gets directly into the coda section by using the descending triplet figuration.

CODA

The Coda (mm. 134-155) is a fading away passage in contract to the preceding section. Furthermore, the note C transfers its role from the bass of the second inversion of the submediant triad in C major in the previous section B′ to the note which keeps disrupting the descending line, and reminds us of the settlement of C major. Thus, a single note has dual meanings in both preceding and subsequent sections, which creates different harmonic concepts. Moreover, the four-measure descending triplet figures (mm. 134-137) unfold the entire pitch collection with the use of voices moving in parallel motion, the compositional technique commonly seen in Impressionist musical styles. Even the density is loosening in the coda; however, the tonal complexity is intense. The conflict between polymodal combinations and one single mode is intense in the first part of the coda. Therefore, towards the end of the piece, the triplet-figuration in the top voice

coincidentally connects the ending of section B′ (m. 133), and in company with the chromatic ascending line in the middle voice from C♯, D, D♯ to E (mm. 147-150) converges on the tonic triad of C. Thus far, it is the first and only solid cadence in the tonic. Moreover, the shifting modal segments in the coda produce the chromatic effect. After several measures with tonal uncertainty and chromatic embellishments, the harmonic progression shows strong dominant-tonic (at m. 147) through the end of the piece. The small fragments of the triplet-figures and *jota* theme reveal the entire pitch collection which produces instability and uncertainty. On the other hand, C in the bass continually asserts the ultimate tonal center. Consequently, the tonality eventually returns to a single mode. In summary, the combination and shifting between diatonic and modal segments produce a chromatic effect and participate in a chameleon-like fabric. Therefore, it contributes to the speed of harmonic rhythm forward and changing of the mode, mood and nuance that are essential characteristics in Spanish music.

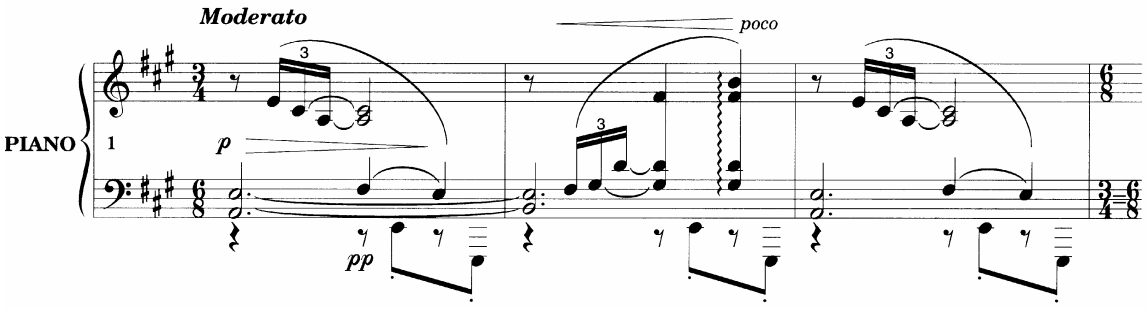
Chapter 3: Cubana

Falla explained that "the themes of the 'Cubana' are based on the *guajira*[14], the first, and the *zapateado*[15], the second. Both have a similar rhythm."[16] The Latin American *guajira* rhythm combines 3/4 and 6/8 meters alternatively and simultaneously between two hands. Another dance rhythm, the Andalusian heel dance- *zapateado*, is also written in 6/8 meter with various vertical accents. The formal structure of the "Cubana" is simply a ternary form (see Table 7).

Table 7: "Cubana." Form

	Introduction	A	B	A′	Coda
mm.	1-3	4-29	30-78	79-108	109-116

Example 8: "Cubana" (mm. 1-3).



[14] The music of *guajira* is of sixteenth-century Cuban origin. The rhythm is combined 3/4 and 6/8 meters alternatively and simultaneously between two hands.
[15] It is usually a solo in 3/8 or 6/8 time and displays strong rhythmic beats with both heels and ball of foot.
[16] Falla talked about his *Cuatro Piezas Españoles* in a letter written for Henri Collet in Paris, April 15, 1909. See Gonzalo Armero and Jorge de Persia, ed., *Manuel de Falla: His Life and Works* (London: Omnibus Press, 1999), p. 65.

SECTION A

The opening three-measure introduction is based on tonic-dominant-tonic progression in A major. However, the E bass-note in a repeated broken octave suggests an anticipation of the E modal tonality of the following section. The prelude introduces a strummed guitar figuration, which pervades the accompaniment throughout the whole piece (see Example 8). The outline of section A is based on the three-measure introductory material and copla melody, see Table 8.

Table 8: "Cubana." Section A. Outline.

	Introduction	Copla (verse)1		Interlude	Copla 2	
mm.	1-3	4-11	12-15	16-18	19-26	27-30

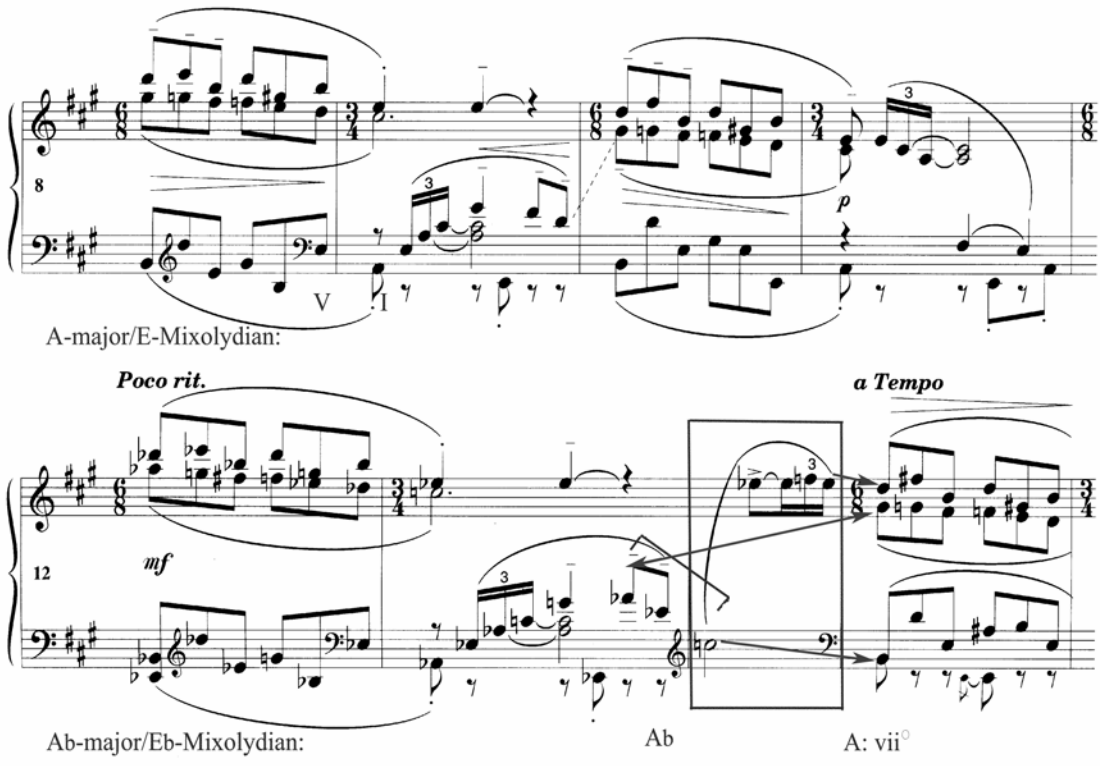
In copla 1, the first phrase (mm. 4-11) is based on A major. The tonality of A is confirmed by the prominence of dominant-tonic cadences (at mm. 7, 9, and 11). However, the melody in the soprano may suggest the E-Mixolydian mode by the phrase ending on E (at mm. 9 and 11). What is significant about this dual-tonality is that the E-Mixolydian mode is actually the rotation of the A-major mode (see Figure 2). Although the tonal center in the first part of copla 1 is A with the coloration of E-Mixolydian in the melody, the two-measure units in the construction of 6/8 + 3/4 (mm. 8-11: 6/8 meter at mm. 8 and 10; 3/4 meter at mm. 9 and 11) shift directly a half-step down to A♭ (mm. 12-13) by using the similar melodic contour and harmonic progression (Example 9). The harmonic progression seems to be simply dominant to tonic in each of the three two-measure units (mm. 8-9, 10-11, and 12-13). However, the first two units are in A (mm. 8-9 and 9-10) and the last one is in A♭ (mm. 12-13). In order to get back to the A tonal

center, one more measure was added (m. 14), in which the top voice descends a half-step down from E♭ to D as well as the bass note from C to B. As a result, this segment (mm. 12-15) ends on the same melody and tonality as the previous phrase (mm. 4-11).

Figure 2: Rotational Relation of A-major and E-Mixolydian Modes.

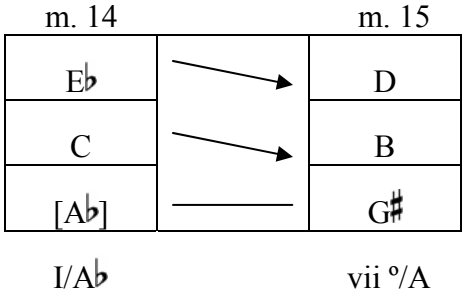
⌜ A-major mode ⌝
A-B-C♯-D-E-F♯-G♯-A-B-C♯-D-E
⌞ E-Mixolydian ⌟

Example 9: "Cubana" (mm. 8-14).



The harmonic design in measure 14 is ambiguous; it could be observed as the prolongation of the A♭ -major tonic chord from the previous measure (m. 13). However, if we analyze the harmonic progression as the tonic of A♭, [A♭]-C-E♭ (at m. 14) to the diminished-seventh chord of A, G♯-B-D (at m. 15), the missing A♭ is actually G♯ in enharmonic spelling and the C and E♭ linearly moving down to B and D respectively. This takes us from A♭ back to A major (see Example 9). In this case, the A♭/G♯ is actually the focal point for the transition between the A♭ and A tonal areas. By the shifting of the dominant-tonic as a block (two-measure unit), first in A, then in A♭, followed by the return of the original tonality by a half-step motion down, as shown in Figure 3, a design is produced that colors the repetitive melodic materials. These materials occur in different tonal modalities as the basis of the local sequence.

Figure 3: Compositional Design (m. 14).

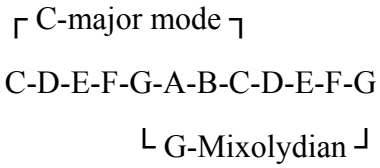


In retrospect of the dominant-tonic harmonic progression in the first part of section A, the resolution to tonic always appears in 3/4 meter (i.e., mm. 7, 9, 11, and 13). In anticipation of the progression at the point for the phrase ending on dominant-tonic, the measure in 6/8 meter (m. 15) directly moves back this time to the three-measure

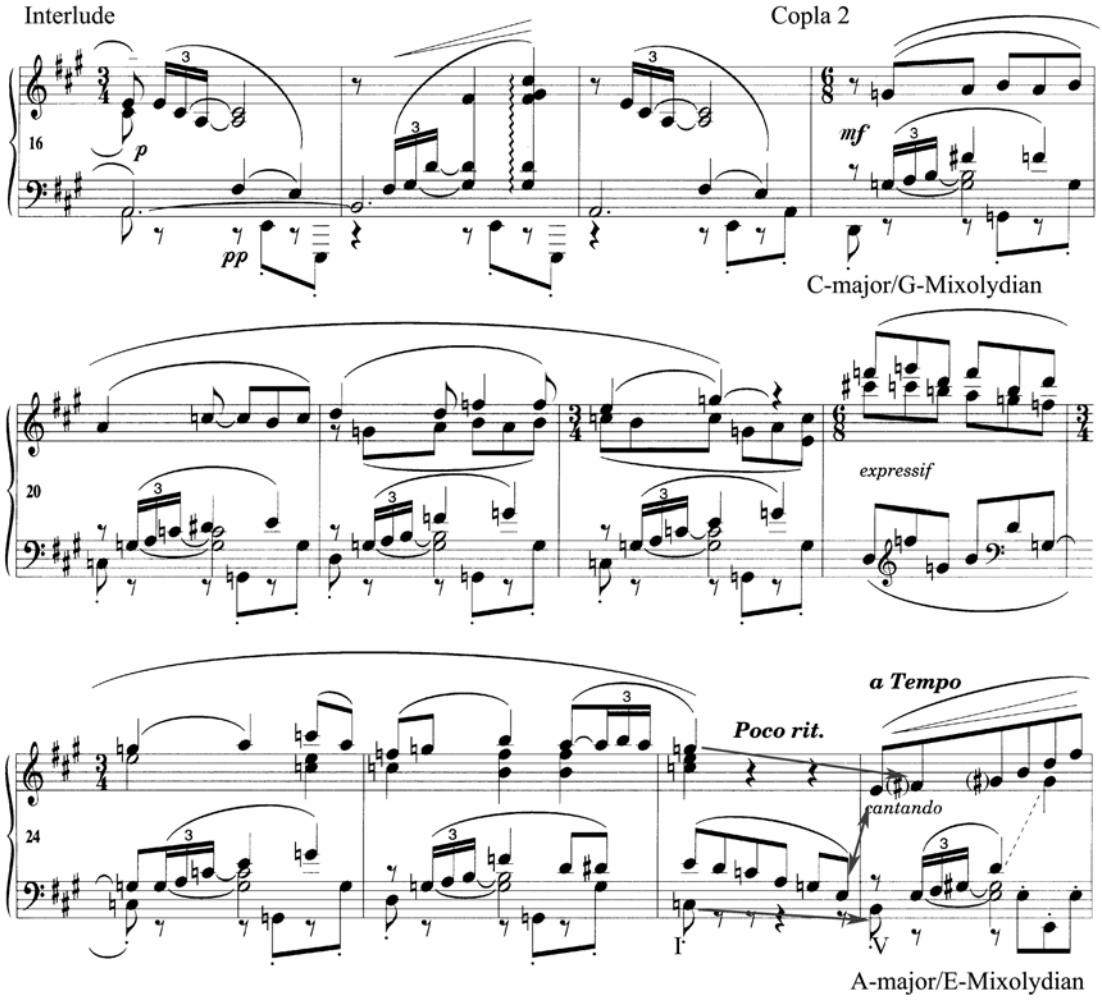
introduction (mm. 16-18). Thus far, the ending of the first part of section A (copla 1) is actually the beginning of the following section (interlude and copla 2).

The three-measure interlude is identical with the opening introduction. However, the third beat in the bass (at m. 18) moves to A instead of E in its corresponding position. Accordingly, the A resolves to D (at m. 19) in the following phrase, i.e., the dominant of G, which suggests an anticipation of the G modal tonality. A similar technique was used for the previous section, i.e., the bass-note E resolves to B (at mm. 3-4) which suggests an anticipation of the E modal tonality in the subsequent phrase. Following the three-measure interlude, the melodic line moves up a minor third in relation to the original copla 1. The soprano melody suggests the modality of G-Mixolydian at the ending phrase on G (at mm. 22 and 26, see Example 10). The C tonality is confirmed by the strong dominant-tonic cadences (at mm. 22 and 26). Again, the relation between these two tonalities, C-major and G-Mixolydian is that the G-Mixolydian is actually a rotation of the C-major mode (Figure 4). The first part of copla 2 (mm. 19-26) is outlined by the C-major scale, but with G-Mixolydian blending in the modal color.

Figure 4: Rotational Relation of C-major and G-Mixolydian Modes.



Example 10: “Cubana” (mm. 16-27).



After the cadence in the C-major tonic (at m. 26), the bass line descends a half-step to B, the fifth degree of the E-tonic chord (at m. 27). Hence, the tonal center comes back to A-major/E-Mixolydian (mm. 27-30). Additionally, the harmonic progression unfolds from the tonic of C, C-E-G (at m. 26) to the dominant of A, E-G♯-B (at m. 27). The note E is common to both the C-tonic and A-dominant triads, the notes C and G moving in contrary motion to B and G♯, respectively (Example 10). The E is actually the pivot point for the transition from the C to A tonal areas. In respect of the technique used

to transfer the tonal center from A♭ (mm. 12-13) back to A, the half-step is used to shift the tonal center directly from one section to the next and to manipulate one note as the pivot point between the preceding and succeeding sections to create tonal instability and ambiguity. Furthermore, the rotational relation between two diatonic modes (i.e., A-major/E-Mixolydian and C-major/G-Mixolydian) is an essential means of rotating the original tonal/modal constructions into a contemporary context, such as the modal diversity and tonal modality.

SECTION B

Table 9: "Cubana." Section B. Outline.

	based on 1+1(6/8,3/4)	(4+4) + (2+2)	(4+4) + (2+2+2)	lyric phrase	interlude
mm.	30-41	42-53	54-66	67-71	72-78

The phrase structure of section B becomes complex with the greater mixture of rhythm (Table 9). It presents another dance rhythm, *zapateado*, also written in 6/8 meter with various accents. The first part (mm. 30-41, see Example 11) of section B is constructed on a sequence of two one-measure units (one-plus-one), which are established on 6/8 and 3/4 meters in succession. According to the melodic statement, the first part of section B could also be divided into three groups. Each of them contains two parallel pairs of one-plus-one units (see Table 10).

Example 11: “Cubana” (mm. 30-44).

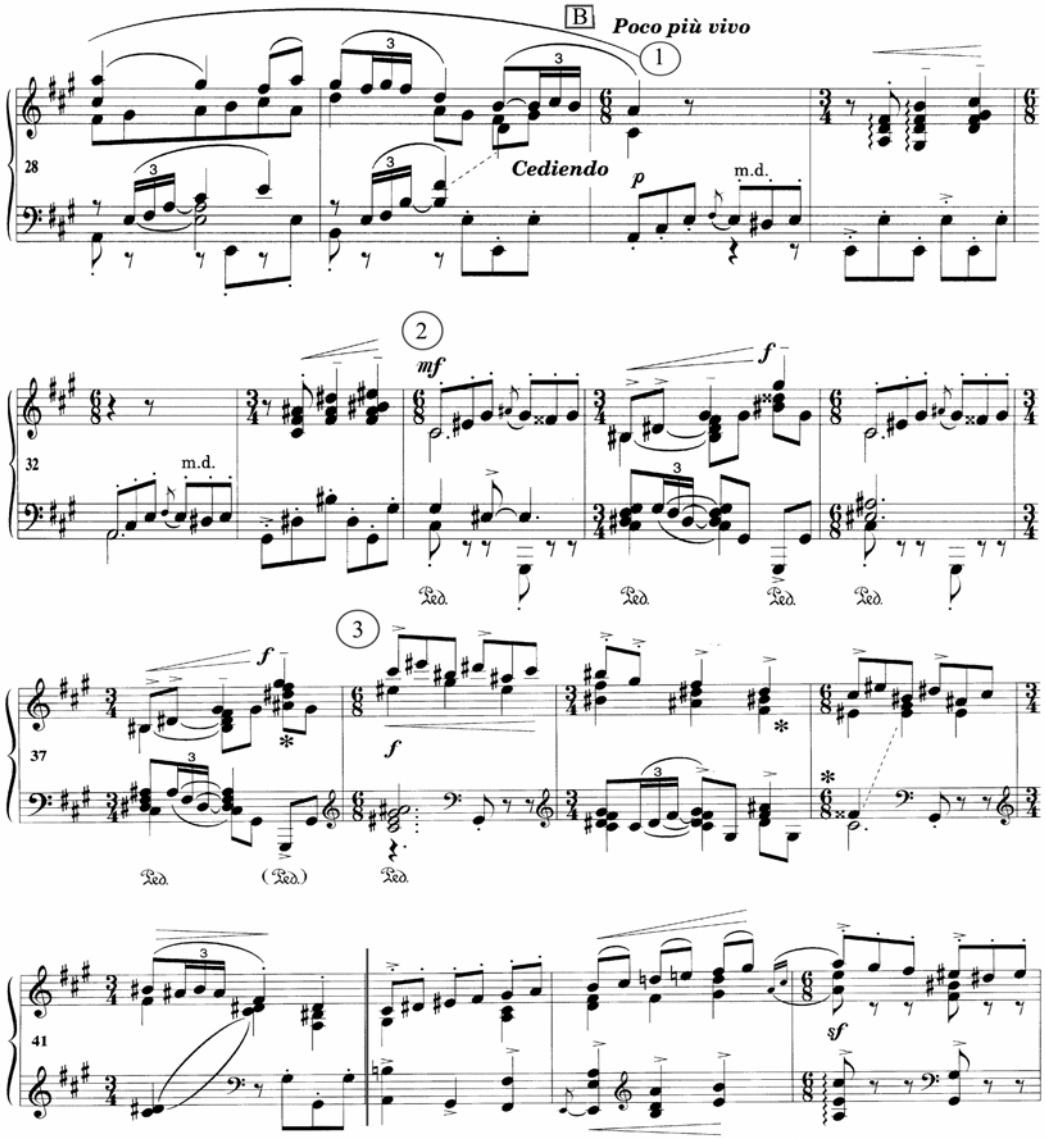


Table 10: “Cubana.” Phrase Units and Harmonic Progression (mm. 30-41).

groups	1				2				3			
mm.	30	31	32	33	34	35	36	37	38	39	40	41
1+1	6/8+3/4		6/8+3/4		6/8+3/4		6/8+3/4		6/8+3/4		6/8+3/4	
	A:I		C♯:V		I	V	vi		V7	I	V7	

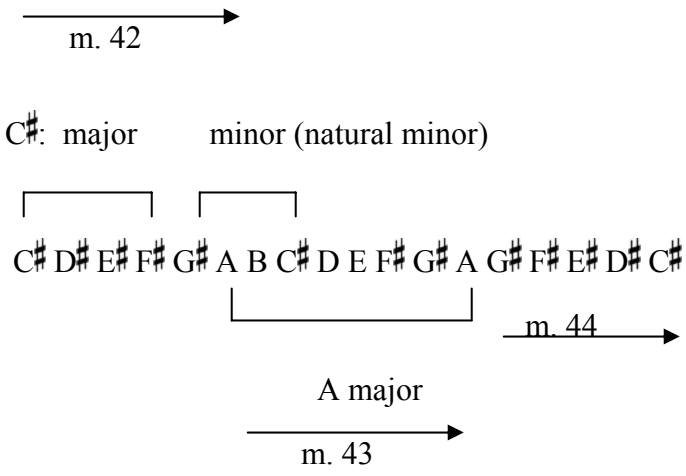
The tonality is first established on A, but with the chromatic embellishment of D♯ (at mm. 30 and 32), which is actually the leading tone to the root (E) of the dominant of A. The tonality shifts to C♯ (at m. 33) and the chromatic embellishment of F𝄪 emphasizes the leading tone to the root (G♯) of the dominant, (at mm. 34 and 36). In respect of the tonalities in the first group (mm. 30-33), first A then C♯, the bass line unfolds from A to E (at mm. 30-31) and A to G♯ (at mm. 32-33). What is striking about this parallel unit is that — and this seemed insignificant — the bass lines of these two units (mm. 30-31 and 32-33) actually play an analogous role; i.e., the latter is really the tonic of A, which shifts to the dominant of C♯. This is the same harmonic progression as the former one, tonic to dominant (A to E). However, the chordal figures in the treble clef (at m. 31 and 33) are based on tertian constructions against the bass line to produce tonal instability.

The tonality is maintained in C♯ throughout the second group (mm. 34-37), and the melodic statement in the top voice continues to be based on one-plus-one phrases. It is the harmonic function of these two units that is different. While the first unit of the second group (mm. 34-35) is established upon the tonic and dominant of C♯, the following unit changes some color by adding the submediant of C♯ (A♯). In the third group (mm. 38-41), the soprano line in 6/8 meter creates the hemiola effect, while the tonality stays in C♯, as did the previous group. Metric complexity between adjacent measures and the frequent changing of one or more notes within repeated units all produce the rhythmic and harmonic intensity characteristic of Spanish music.

After the one-plus-one unit section, the following part of section B reveals a greater mixture of major/minor sonorities and phrase structures. This section (mm. 42-53) is assembled into a pair of four-measure segments (mm. 42-45 and 46-49) and another pair of two-measure units (mm. 50-51 and 52-53). The ascending scale in the top

voice (at mm. 42-43; see Figure 5) presents the bimodal combination of C♯ major/minor and A major, C♯-D♯-E♯-F♯-G♯-A-B-C♯-D-E-F♯-G♯-A. After the ascending scale, the tonality shifts frequently among C♯, A, and E. The tonic triad of A appears on the first strong beat (at m. 44) and then the soprano unfolds a descending C♯ major/minor scale, A-G♯-F♯-E♯-D♯-C♯, to arrive at the tonic of C♯ (at m. 45).

Figure 5: Scale and Tonality Design (mm. 42-44).



From the other point of view, this major/minor combination mentioned earlier actually gives us a non-diatonic mode (see Figure 6 and Example 12) that appears strikingly to be common in many parts of Europe, for example in Hungary. Antokoletz points to "the non-diatonic folk mode found by Bartók in Hungarian peasant music, with divergent overlapping modal segments."[17]

[17] Elliot Antokoletz uses the non-diatonic folk mode in his article: E-F♯-G-A-B♭-C-D, which is the transposition of the folk mode being used in this study. See Antokoletz's "Transformations of a Special Non-diatonic Mode in Twentieth-Century Music: Bartók, Stravinsky, Scriabin and Albrecht" *Music Analysis* 12:1 (1993): 26-27.

Figure 6: Non-diatonic Folk Mode.

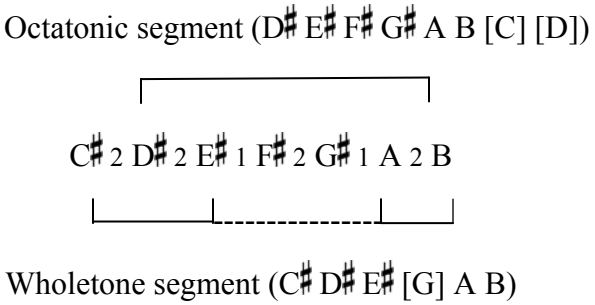
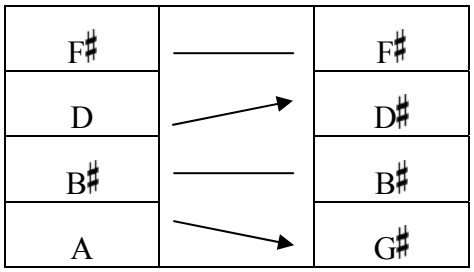


Figure 7: Compositional Design (m. 46).



C♯ : Phrygian cadence V7

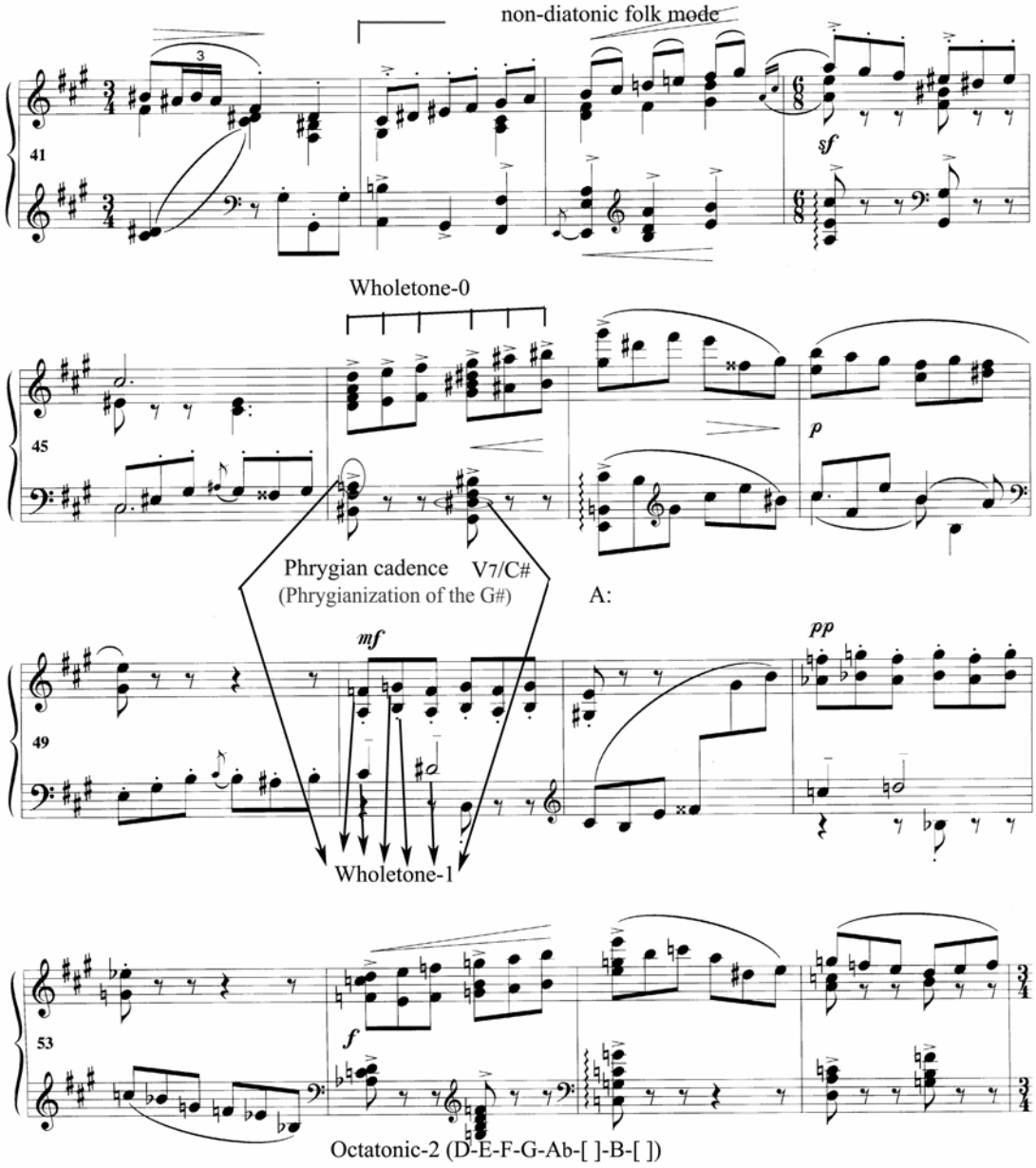
(Augmented-sixth construction

that functions as part of a Phrygian cadence)

↓↓

C♯-D-E-F♯-G♯-A-B♯

Example 12: “Cubana” (mm. 41-56).



The chord, D-F♯-A-B♯ (at m. 46, first beat), the Neapolitan-seventh of C♯ major (Augmented-sixth chord on the second-degree of C♯ as tonic), moves to the dominant-seventh (G♯-B♯-D♯-F♯) on the next beat. Moreover, the Neapolitan-seventh chord actually produces the color of the Phrygian (C♯-D-E-F♯-G♯-A-B♯, C♯-Phrygian mode with the Gypsy inflection)[18]. On the other hand, Figure 7 demonstrates the two chords (D-F♯-A-B♯ and G♯-B♯-D♯-F♯) which seem to apply the similar technique as earlier (m. 14, Figure 3 on page 26, and m. 26). B♯ and F♯ are common to both chords while the notes D and A move in contrary motion to D♯ and G♯, respectively. While the voice-leading produces strong linear functional tendency, the harmonic significance emphasizes the Spanish modality. The A tonality returns by way of its dominant (at m. 47, see Example 12). What is striking about this is that it seems to be simply the shifting between the tonalities of C♯ and A (at mm. 46-47), but really is the mixture of the traditional function and the Phrygianization of the G♯ (Phrygian cadence) to the dominant of C♯ then going to A. In traditional tonal function, the C♯ tonality moves to its sixth degree, A. However, it is the Phrygian quality underlying the related tonal areas that creates the Spanish quality, but still within the sense of traditional functionality. Furthermore, in the process, it creates WT-0, D-E-F♯-G♯-A♯-B♯ in the top voice (at m. 46), but the bass clef contains cross relations with the treble melody, i.e., A and D♯ conflict with the WT-0 scale (Example 12), the significance being the conflict between modal and wholetone spheres. The harmonic relationship is the nineteen century tradition, but asserts the modal quality and the modes simultaneously.

In the transition (mm. 45-46), while certainly we have the major/minor chords (on C♯ and A), the whole passage is based on C♯ major, which creates the unity of the mode.

[18] The Neapolitan chord is a major triad constructed on the lowered second scale degree. In rare instances, the Neapolitan includes a seventh scale degree, in enharmonic spelling, D-F♯-A-B♯. Here, in the analysis, the Neapolitan-seventh is also the Augmented-sixth chord on the second-degree of C♯ as tonic; in other words, it is an Augmented-sixth construction that functions as part of a Phrygian cadence.

This was discussed earlier in the analysis (mm. 42-45; C♯ major-minor, with E♯ and E, raised/lowered-third degree). The non-diatonic mode is found in east Europe and Spain.

Furthermore, the harmonic progression in these measures (mm. 46-47)—the Phrygian cadence, which is the Phrygianization of the G♯ to the dominant-seventh of C♯, modulates to A (at m. 47), which is really explainable in terms of this non-diatonic mode. All the harmonic progressions make sense as they are related to the mode. As a result, the functional progression is based on one mode. Fusion of the modality and traditional tonal functionality increases the complexity and intensity.

The compositional technique of Falla discussed above reveals the synthesis of romanticism with Spanish folk modality. What is more modern about this is that there is complexity of the mode and the wholetone scales aspects of it. All these analytical details suggest that Falla was in the period of experiencing various compositional techniques such as traditional tonality, tonal modality and non-diatonic modal serialism.

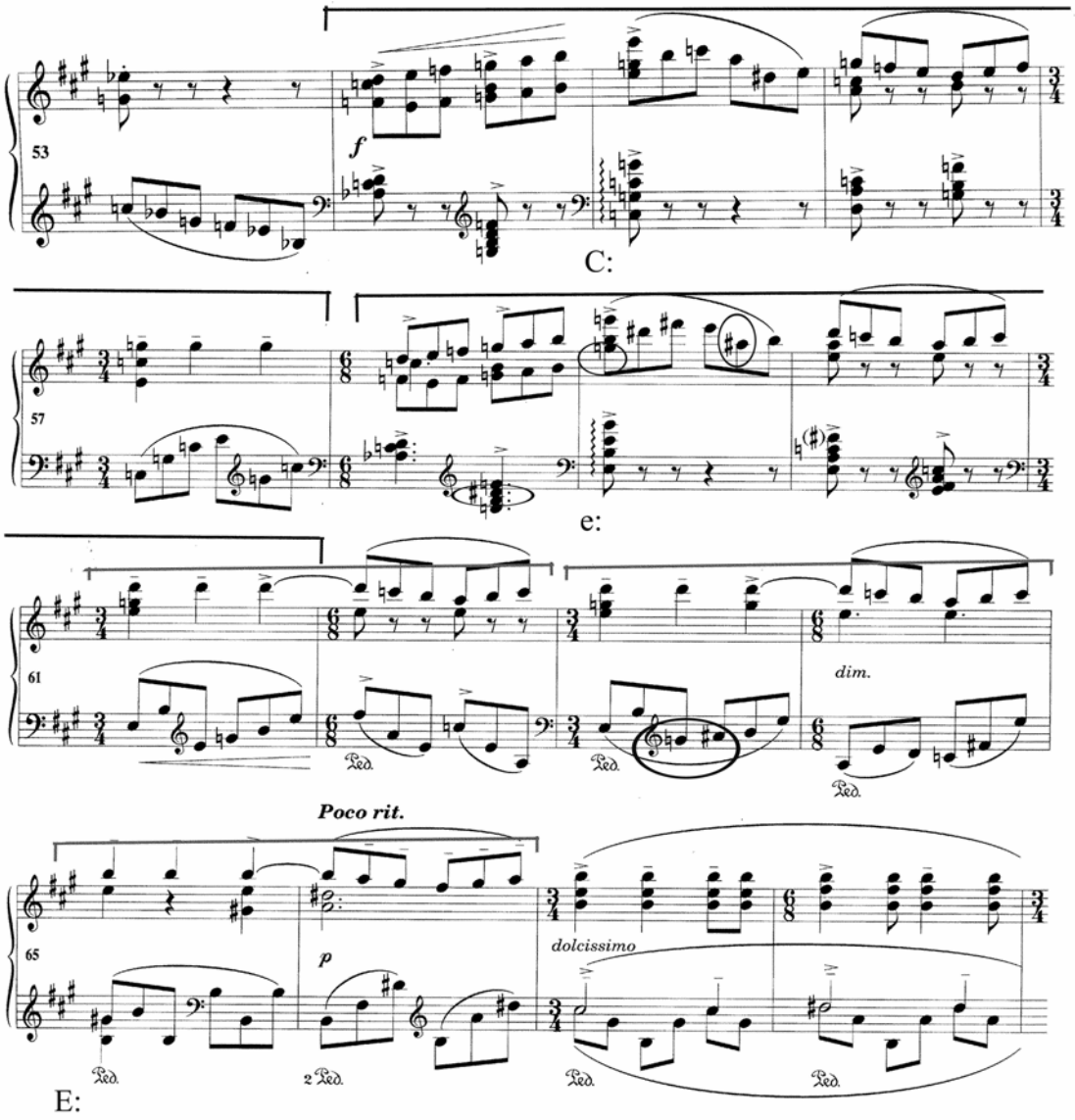
The pair of two-measure units (mm. 50-53) is repeated by the use of the same melodic statement and rhythmic motives. However, the tonal sonority is different from one to the other. The first unit (mm. 50-51) remains in E major, but with one chromatic embellishment, F𝄪 (at m. 51), which is G enharmonically and actually belongs to the harmonic content of the following unit (mm. 52-53), C natural minor. On the other hand, while the WT-1 was completed at measure 50, WT-0 which appeared earlier (at m. 46), now re-enters in the right-hand (A♭ and B♭, at m. 52) and left-hand (E and F). Altogether, this creates a quick link between these diatonically unrelated tonalities (i.e., E major and C minor). Such frequent changes and mixtures of mode are essential to Spanish music and take the tonal modality onto a more sophisticated level.

The notes D and E in the top voice (at m. 46, see also Example 12) are part of the WT-0 (D-E-F♯-G♯-A♯-B♯), but also prepare for A major (i.e. the A tonality returns by

way of its dominant at m. 47). But later (at m. 54), those two notes show the potential of Octatonic-2 (D-E-F-G-A♭-[ ]-B-[ ]), as the analogues initial generating dyad. Thus far, the formal structure is defined by completing the non-diatonic mode or showing part of it. This mode creates intensity and complexity in the middle section of "Cubana" by its implication (i.e., though not present on the foreground level) through the symmetrical sets that can be generated from it.

The following part (in section B; mm. 54-66, see Example 13) contains a pair of four-measure segments (mm. 54-57 and 58-61) followed by three identical two-measure units (mm. 61-62, 63-64, and 65-66). However, measure 61 serves a the double function by means of the phrase structure; it serves as the ending of the four-measure segment as well as the beginning of the following two-measure unit. The melodic transition actually begins at measure 60, while the accompanying chordal figures in the bass clef continue from the previous units (mm. 54-57). Consequently, the manipulation by elision provides continuity and ambiguity of the phrase structures. The tonal center (in mm. 54-57) directly moves to C major from the previous C natural minor. However, the second four-measure statement (mm. 58-61) shifts again by using D♯ in the bass (at m. 58, second beat) instead of D in its corresponding position (at m. 54). As a result, the harmonic function of the chord with D is changed into a whole-tone chord (G-B-D♯-F), which is pivotal to E minor. The chord contains a fusion of two "functional" elements: the upper wholetone dyad (or diminished-third), D♯-F, implies a Neapolitan that chromatically encircles the tonic note, E (this can be refereed to as a Phrygian cadential function). The lower major-third dyed, G-B, anticipates the remaining part of the tonic chord. This whole-tone transformation is therefore a combination of elements from two different chordal constructions: E minor and Neapolitan.

Example 13: “Cubana” (mm. 53-68).



Thus far, changing one note in the repeated phrase really switches the tonalities around efficiently and produces the tonal instability. On the other hand, after the intense modal transformation in the first part of section B, the tonal center finally narrows down and settles in one area, E minor. The musical expression also responds to the design of

tonal modality; the fast shifting dynamic and accent marks gradually calm down to a lyric passage with *diminuendo* and *ritardando* for the ending of section B.

After the tonality shifts from E minor (mm. 59-64), with occasional Gypsy inflection (augmented-second G-A♯, at m. 59 and 63), to E major (mm. 65 ff), the tonal center uses the common tone, C♯, moving further to F♯ minor (mm. 70 ff).

The following part of section B (mm. 72-78) is an interlude serving as transition from the middle section back to section A. The first four measures of this interlude (mm. 72-75) are outlined by two parallel one-plus-one (6/8 + 3/4) units. The D-E♯-F♯ in the treble melody and the pedal point, C♯, produce the Arab inflection in F♯ harmonic-minor. By using the enharmonic spelling and altered notes in the successive segments of treble melody (i.e., D-E♯-F♯-[E♯-F♯] at mm. 72-75, D♯-E♯-F♯-[E♯-F♯] at m. 76, and E♭-F-G-F♯-[G] at mm. 77-78) and the half-step descending line in the pedal point (i.e., C♯ at mm. 72-75, C at m. 76, and C♭ at mm. 77-78), the tonality gradually transfers from F♯ minor back to A major (at mm. 79 ff). From the other point of view, if we unfold all these altered notes except the Arab-inflection note, D, we would actually get the rotation of the non-diatonic mode (C♯-D♯-E♯-F♯-G♯-A-B) that was generated in the middle of section B (mm. 41-57). Thus far, section B is developed by rotation and transformation of the non-diatonic mode, but moves in and out of traditional tonality. In other words, the non-diatonic mode plays a prominent role; it creates a concept that is more complex and modern, that is, toward modal tonality and non-diatonic modal serialism, but still maintains the sense of traditional functional tonality and ultimately unifies the whole B section. Such fast changes and mixture of modes and tonalities are also a reflection of the characteristic of fast shifting meters in *guajira* rhythm. Hence, the latter and the contrast of these meters that occurs simultaneously between two hands, as well as the fast-shifting tonalities, speed the harmony forward. Together with modal variations, they

create the intense and colorful characteristic of Spanish music. Another compositional technique, hemiola, is also a salient feature in the middle section. The rhythmic counter-play creates complexity which is essential to Spanish dance music.

SECTION A′

The outline of section A′ is demonstrated in Table 11. The harmonic progression similar to the opening section A is applied in the beginning of the section-A return (mm. 79-86). However, the treble melody expands into mostly octaves to enrich the density. The tonic- dominant concept (A-major and E-Mixolydian) seems to be functional but not in the traditional way, because the E-G♯-B-D emphasizes the E-Mixolydian rather than A-major (dominant-seventh chord), which creates the modality. Moreover, instead of going to A♭ (at mm. 12-14), the tonal center moves to C major (mm. 87-88) but eliminates one measure according to its corresponding position. As a result, the harmony speeds up and directly moves back to A major (mm. 89 ff) by means of contrary motion (i.e. bass line from C to B; tenor line from E to D, and alto line from G to G♯). Thus, using a similar technique and concept to shift around various tonalities, such design unifies the piece as a whole.

Table 11: "Cubana." Section A′. Outline.

	Copla 1		Interlude	Copla 2		
mm.	79-86	87-89	90-92	93-100	101-104	105-107

In retrospect of the tonalities in copla 2 of section A, are C then A. However, in section A′, the modality goes one step further to C-Aeolian, C-D-E♭-F-G-A♭-B♭ (at mm. 97-100), which produces a pentatonic color (especially at m. 100). Each phrase statement (from m. 97 to the coda) is based on different modal-tonal constructions, i.e., C-Aeolian and E♭ major (at mm. 97-100), G-Mixolydian and C-major (at mm. 101-104), and E-Mixolydian and A-major (at mm. 105-108). The melodic lines reveal folk-modal influence, while the sense of the functional tonality is still traceable.

CODA

The opening three-measure introduction comes back (at mm. 108-110), with a fragment of the A-section melody. The A-section melody tends to continue (i.e., at m. 111 and 114). However, the introductory triplet figure keeps interrupting, and finally with the *rallentando*, the music ends with a plucking effect on dominant to tonic in the bass which can be found frequently in Albéniz's music.

Chapter 4: Montañesa

The third piece of *Cuatro Piezas Españoles*, "Montañesa," evokes a landscape of the region of La Montaña, in the province of Santander. This piece is in a simple ABA form with a coda (see Table 12). However, it is a rare example in which Falla actually incorporated folk tunes into his composition rather than creating folklore color by merely using rhythm, modes and so on. In a letter written to Henri Collet in Paris, April 15, 1909, Falla wrote:

> And now we reach the "Montañesa", quite different from the other two ("Aragonesa" and "Cubana"). Its themes are a major alteration of two folk ones. I wrote this piece in Paris after returning from a stay in the north of Spain the previous winter. What an effect the atmosphere and landscape of that part of my country had on me! ... The church bells ringing in the distance, slow and sad songs, dances, and all this with a superb backdrop of imposing snow topped mountains… Truly, there is material there to make not just one piece, but a whole musical world.[19]

Table 12: "Montañesa." Form

	A	B	A′	Coda
mm.	1-28	29-62	63-80	81-88

[19] Gonzalo Armero and Jorge de Persia, ed., *Manuel de Falla: His Life and Works*, p. 65.

SECTION A

The open-fifth chord (D-A) serves as the pedal point throughout most of section A to create a bell-like effect. Together with the treble melody and its eighth-note echo in the alto voice, they evoke an impressionistic atmosphere. The outline of section A is shown in Table 13.

Table 13: "Montañesa." Section A. Outline.

	Introduction	Montaña song	Interlude
mm.	1-10	11-20	21-28

Although the bass open-fifth chord (D-A) may suggest the tonality of D (mm. 1-4), the harmonic fabric is determined primarily by the inverted minor-seventh chord (B-D-F♯-A) and major triad (D-F♯-A), see Example 14. The fourth degree (E) of the B mode is part of the alto (at mm. 1-2) and treble melody (at mm. 3-4). Together with the B-D-F♯-A outline, they create a pentatonic structure.[20] Section A is based on the pentatonic scale (B-D-E-F♯-A, later expanded and transformed into various modes (Table 14).[21]

[20] The discussion of pentatonic derivations by Bartók is in "The Folk Songs of Hungry," *Pro Musica* (1928): 28-35, and in *Béla Bartók Essays*, ed. Benjamin Suchoff (New York: St. Martin's Press, 1976), pp. 334-336. Also discussed and cited by Elliott Antokoletz, *The Music of Béla Bartók: A Study of Tonality and Progression in Twentieth-Century Music* (Berkeley and Los Angeles: University of California Press, 1984), pp. 28-29.

[21] According to Bartók, the pentatonic scale can be transformed into a Dorian, Phrygian or Aeolian mode by adding the second and/or sixth degrees of the diatonic scale. See Bartók, *The Hungarian Folk Song*, ed. Benjamin Suchoff, trans. M. D. Calvocoressi (Albany: State University of New York Press, 1981), pp. 18-19. See also *Béla Bartók Essays*, p. 85.

Example 14: “Montañesa” (mm. 1-3).

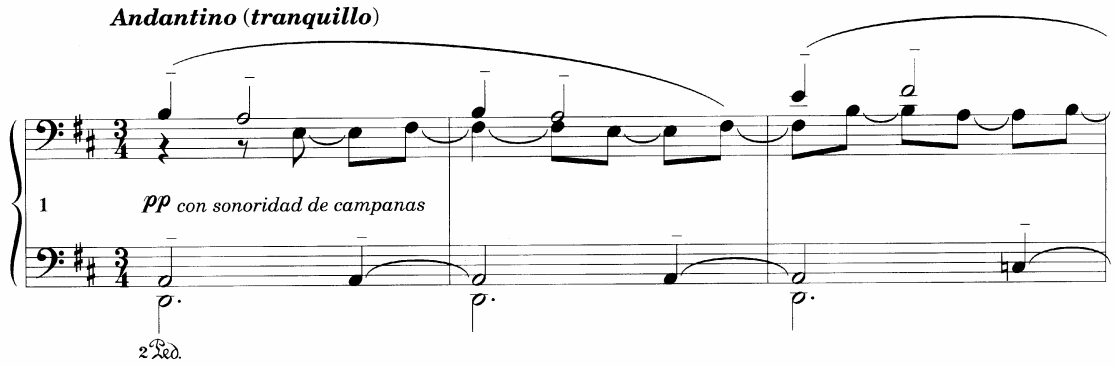


Table 14: “Montañesa.” Pentatonic Scale and Expansions.

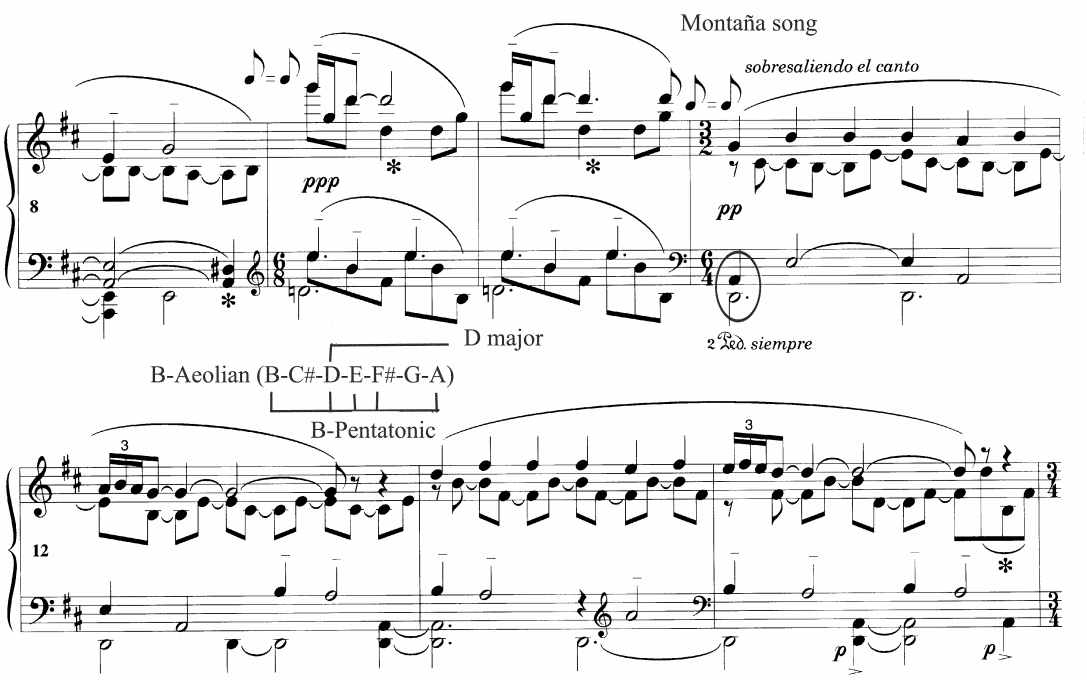
Pentatonic	B			D	E	F♯			A
B-Dorian	B		C♯	D	E	F♯		G♯	A
B-Phrygian	B	C		D	E	F♯	G		A
B-Aeolian	B		C♯	D	E	F♯	G		A

Although the B-pentatonic scale is the nucleus, the tonic B seems to be weakened by emphasizing different notes of the pentatonic scale. For example, the notes C♯ and G♯ (at mm. 5-6), which are coloring the D and A respectively by serving as the leading tones, produces an inflection of B-Dorian mode (B-C♯-D-E-F♯-G♯-A).

In the first part (mm. 11-14) of the Montaña song, the D-A drone creates the tonal conflict, i.e., the B-pentatonic and D major. However, the priority of note B is asserted by its frequent appearance in the melodic contour. That is, the original Montaña song (at mm. 11-12); eighth-note echo in the alto voice and the *tenuto* in the tenor voice, (Example 15). In other words, the B is always projected on a certain level. Consequently, the modal tonality is really established upon the B-Aeolian (B-C♯-D-E-F♯-

G-A), which is also the rotation of D-major mode. Moreover, this folk-tune section produces a B-Aeolian expansion of the basic B-pentatonic outline (B-D-E-F♯-A).

Example 15: "Montañesa" (mm. 8-14).



One other detail seems significant in this passage. In the first part of the "tune" (mm. 11-14, also see Example 15), the melody first begins with the note G (at m. 11) then D (repeated melodic statement, at m. 13). This is a design that produces the encirclement of the tonic B by using its lower and upper thirds, i.e., G and D. Thus far, the leading tones are used to color the notes of the pentatonic (i.e., C♯ to D and G♯ to A, also see earlier discussion). In order to color the tonic B, these thirds around the tonic -- G and D-- encircle the tonic, B. Consequently, the pentatonic notes are more important than the modal notes (i.e., C♯ and G♯). Even though various modal expansions are

produced by adding the second and/or sixth degrees of the B-pentatonic (see Table 14), ultimately the impressionistic atmosphere is created by emphasizing the pentatonic notes while adding them various modal notes.

The treble melody in the second part (mm. 15-20) of the tune produces the B-Aeolian mode with Phrygian inflection plus chromatic appoggiatura, G♯ (B-C-C♯-D-E-F♯-G-G♯-A). Furthermore, the texture becomes more polyphonic than the preceding phrase, and the adjacent chords seem to provide further chromatic embellishments of the B-Aeolian/ Phrygian bimodality. As a result, except for the fluctuating notes, C, C♯, G and neighbor G♯, which produce the modal colors, the other chromatic passing tones B♭ and D♯ actually embroider the pentatonic notes by encircling up and/or down a half-step, i.e., A, B and D, E, respectively.

After the variant of the folk tune (in mm. 15-20), the partial opening introduction comes back (at mm. 21-28). Moreover, the triplet figures end the melodic statement first on A (at mm. 23-24) then D (at mm. 27-28) that echoes the frequently used D-A drone throughout the A section. Tonal ambiguity is produced by emphasizing the D-A bass chord and obscuring the tonic B. A chameleon-like fabric is the result, and therefore contributes to the changing of the modalities, mood and nuance so essential to Spanish music. The influence of the French Impressionistic music in the early twentieth century is evident in some of these characteristics.

SECTION B

The phrase structure of section B is demonstrated in Table 15 on the next page. The tonality of B is maintained throughout the first part (mm. 29-34) of section B. It is

established on the B-Dorian mode (B-C♯-D-E-F♯-G♯-A) with the melodic ending on G-natural (at mm. 31 and 32), which produces the B-Aeolian or B-natural minor inflection.

Table 15: "Montañesa." Section B. Outline.

	6+8 phrase structure			
mm.	29-34	35-42	43-58	59-62

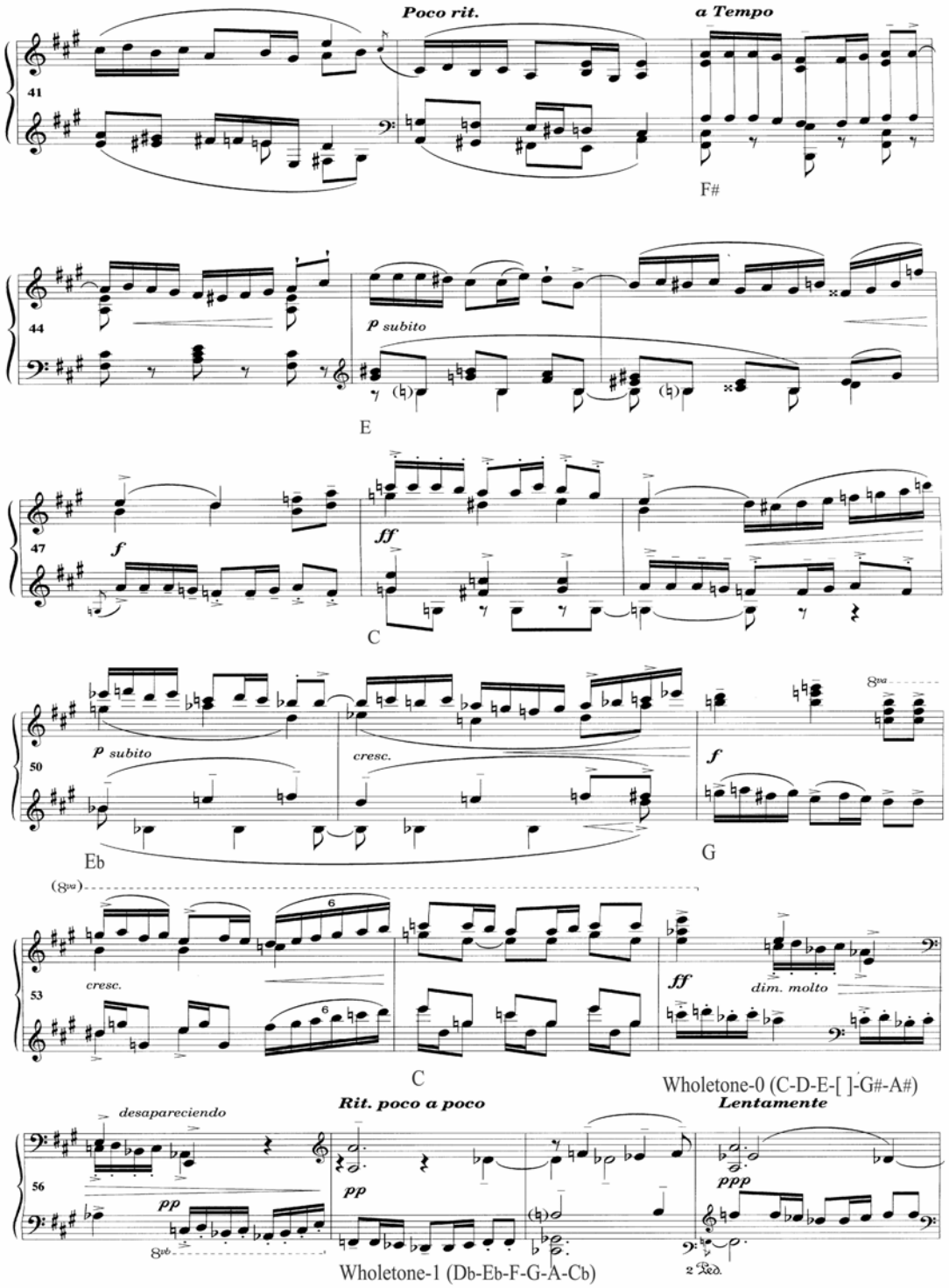
The folk tune first begins with the note D (at m. 29) then F♯ and A (repeated melodic statement, at mm. 33 and 34). It is a design that emphasizes the notes derived from the minor-seventh chord (B-D-F♯-A) except the tonic B. This is a similar idea to that used in the Montaña song (mm. 11-14) of section A, i.e., to color and encircle the tonic B by using its lower and upper thirds, G and D. Such design de-emphasizes the tonic and creates tonal ambiguity. In respect of the harmonic fabric in the introduction (mm. 1-4), the inverted minor-seventh chord (D-F♯-A-B), major triad (D-F♯-A) and E-F♯ statement (mm. 1-2, alto; mm. 3-4, soprano) constructs the pentatonic scale. As a result, the harmony in the first part (mm. 29-34) of section B is actually an echo of the introduction, i.e., the minor-seventh chord (B-D-F♯-A) in the folk tune; the E-F♯ tremolo accompaniment and the *sforzando* chord (D-F♯-A, at m. 34, last beat).

After the first part of section B, the following part (mm. 35-42) is an extension by means of phrase structure and modal construction. While each of the melodic entrances in the preceding phrase (mm. 29-34) are asserted by D, F♯ and A, respectively (at mm. 29, 33 and 34); the following part (mm. 35-42) starts with E, the fourth degree of the B-pentatonic scale. Even though the accompanying figures unfold the entire chromatic continuum, the treble melody is based on the tonality of A. Additionally, the last chord

(A-C♯-E, at m. 42) of this phrase confirms A major. What makes these two parts (mm. 29-34 and 35-42) of section B so connected, despite the structural definition produced by the folk tune throughout the section, is the continuity by means of the modal rotation, that is, B-Dorian (B-C♯-D-E-F♯-G♯-A, in mm. 29-34), which is also a rotation of the A-Ionian mode (in mm. 35-42). Therefore, the fluctuating notes, G and G♯ (suggesting B-Dorian, Phrygian and/or Aeolian inflections, at m. 38; also see Table 14 on page 43) and the melodic contour produce the distinguishing features of Spanish folk music.

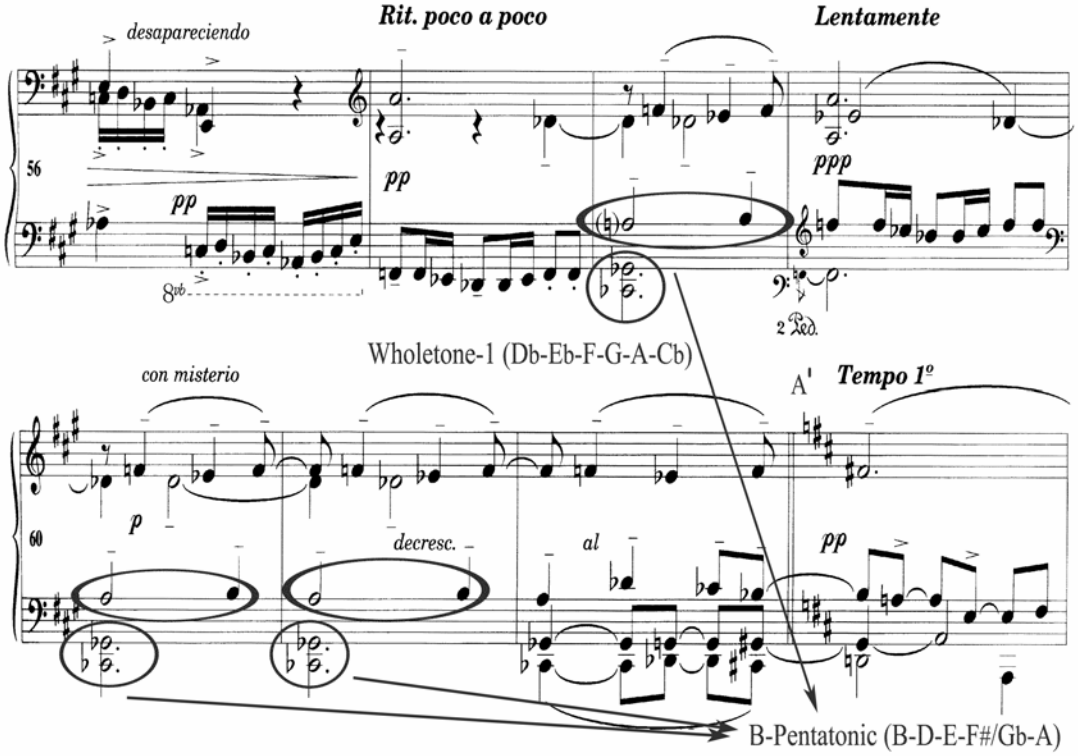
Thereafter, the segments and variants of the folk tune appear successively in both hands (in mm. 43-56, see Example 16), which create an unstable shifting of tonalities. However, the outline of modal tonalities is based on a modal elaboration of the component of the B-pentatonic scale (B-D-E-F♯-A): the order of tonalities is F♯, E, C, (E♭), G, and C, which suggests the content B-Phrygian, [B]-C-[D]-E-F♯-G♯-[A]. Only one exception occurs in this modulatory development, the key of the E♭ major (in mm. 50-51). The latter appears to be a chromatically embellished tonality of the basic background level key scheme, which suggests perhaps the Arab-Phrygian mode: [B]-C E♭-E-F♯-G-[A] (i.e., B-C-D♯-E-F♯-G-A). Ultimately, the entire progression of tonalities is based on an altered form of the B-pentatonic scale, a characteristic of in Spanish folk music.

Example 16: “Montañesa” (mm. 41-58).



After a long section of vacillating modal tonalities, the sixteenth-note motive extracted from the folk tune alternates between both hands (at mm. 55-56) and produces the WT-0 scale (C-D-E-[ ]-G♯-A♯). The transition (mm. 57-62) from the B section back to the opening A section contains the elements from both sections A and B (see Example 17). WT-1 (D♭-E♭-F-G-A-C♭) is asserted in this passage. Therefore, the note G♭ (i.e., mm. 58 and 60-62) in the bass is an odd element against WT-1. Even though the melody in the treble clef (at mm. 58 and 60-62) contains the notes D♭, E♭ and F, which belong to WT-1 but not B-pentatonic (B-D-E-F♯-A); the bass drone (C♭-G♭) and the tenor line (A and B) that belong to the B-pentatonic scale, remind us of the return of section A.

Example 17: “Montañesa” (mm. 56-63).

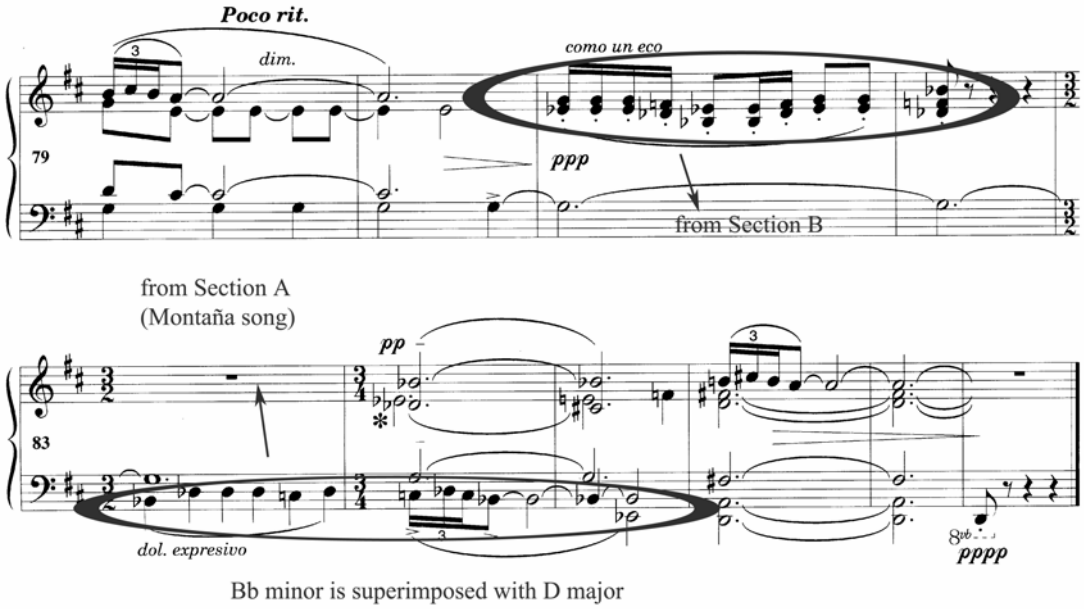


The modulatory procedure of the middle section is basic to the organic process; it increases the "modal" (pentatonic, diatonic and wholetone) density by means of shifting, combining, and articulating various collections and tonalities before returning to the simpler, singular modal tonality of the opening. More specifically, the modal density establishes a polymodal chromatic context so characteristic of the Spanish composers, Albéniz, Granados and Falla.

SECTION A′

The return of the introductory materials (mm. 63-71) is still outlined by the B-pentatonic scale and its expansion (i.e., B-Dorian and B-Aeolian, see Table 14 on page 43), but with variation or transposition. However, the principle of emphasizing the pentatonic notes through modal coloring is still evident. In retrospect, the compositional technique in the section A of the Montaña song reveals the coloring and encirclement of the B tonic by its surrounding thirds (G and D). Therefore, in section A′, instead of using its lower third to de-emphasize the tonic and create ambiguity, the tune starts with the tonic B. This gives us a strong proclamation of the tonic B after long passages of obscuring the tonic. Thereafter, the tonic B disappears, especially in Coda (mm. 81-88, see Example 18), which represents a summary of the two folk tunes applied in sections A and B, respectively. B♭ minor is superimposed with D major, which creates a bitonal effect. The piece ends on the tonic triad of D, which is also a tonal conflict of B-pentatonic.

Example 18: “Montañesa” (mm. 79-88).



The obscuring and its final disappearance of the tonic B produce a tonal ambiguity and conflict. Musically, such design not only creates an impressionistic atmosphere of the foggy mountain where Falla traveled and was inspired, but also yields a nostalgic and reserved Spanish quality.

Chapter 5: Andaluza

In contrast to the impressionistic "Montañesa," the final piece of *Cuatro Piezas Españoles* portrays lively and virtuoso style which revels many well-known characteristics of Andalusian music, such as flamenco dance, guitar figures, and *cante-jondo*[22] melodies. The structure of the "Andaluza" is also in a more extended form than the first three pieces (Table 16).

Table 16: "Andaluza." Form

	A	B	C	B′	Coda
mm.	1-48	49-80	81-106	107-119	120-137

SECTION A

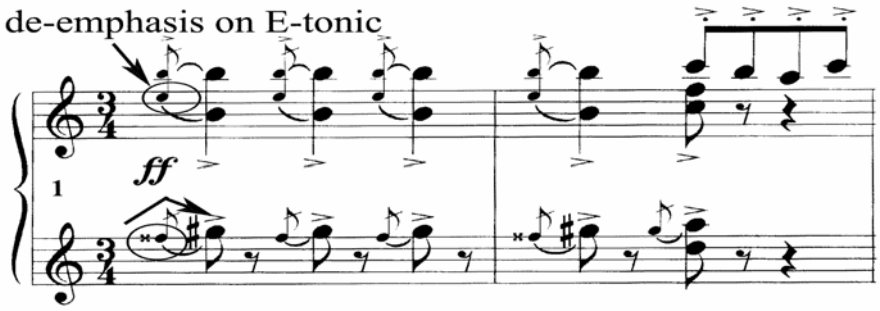
Section A is divided into two major parts: the main thematic ideas/prelude and the transition (see Table 17). The first part of section A contains a pair of parallel phrases (mm. 1-8 and 9-17). The opening tonic E major chord is embellished in typical Spanish style by a grace-note F𝄪 as leading tone to the third degree. This creates a local feeling of major-minor tonality. The E-tonic chord (E-G♯-B) is weakened by de-emphasis on the E root of the tonic triad, the E occurring only in the grace-note anacrusis. This de-emphasis together with the embellishment of the third degree produces ambiguity as well (Example 19).

[22] Deep, profound song. *Cante-jondo* is the oldest and most characteristic type of Andalusian folk music.

Table 17: “Andaluza.” Section A. Outline.

	main thematic ideas/prelude				“transition”
	parallel period				
mm.	1-8	9-17	17-24	25-32	33-48
tonal center	E-tonic area		C major	A	E-A-E

Example 19: “Andaluza” (mm. 1-2).



On the other hand, the E tonic is confirmed by the prominence of the vii7 chord which is paired with the E chord. The ending note of the parallel period (mm. 1-16), E, may also suggest the E-tonic area. However, in addition to the opening E-tonic chord, the first phrase (mm. 1-8) is based on the white key-diatonic scale which is entirely in E-Phrygian. The passage includes both normal diatonic form (i.e., with minor third, F𝄪, or G) and Arab form, (i.e., with G♯). Consequently, the altered F𝄪 (enharmonically G) and G♯ in E-tonic chord and E-Phrygian jointly unfold a compound modal scale, E-F-G-G♯-A-B-C-D-E (mm. 1-8, see Table 18). The segment of Octatonic-2 could be extracted from this compound scale. The second phrase (mm. 9-17) is identical with the first phrase; however, the note A♯ replaces the note A (at m. 15). Therefore, the construction of the compound modal scale becomes E-F-G-G♯-A-A♯-B-C-D-E, which comes toward

the completion of the Octatonic-2 scale (Table 19). Even though this gives almost the entire chromatic, the polymodal combination is obvious and provides the basic coloring inherent in this idiom.

Table 18: "Andaluza." The Compound Modal Scale (mm. 1-8).

compound modal scale	E	F	G	G♯	A	B	C	D	E
E-Phrygian	E	F	G		A	B	C	D	E
E-Arab lower tetrachord	E	F		G♯	A				
Octatonic-2 segment	E	F	G	G♯		B		D	E

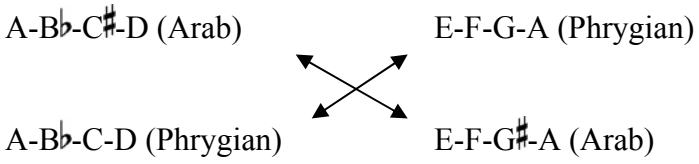
Table 19: "Andaluza." The Compound Modal Scale (mm. 9-17).

compound modal scale	E	F	G	G♯	A	A♯	B	C	D	E
E-Phrygian	E	F	G		A		B	C	D	E
E-Arab lower tetrachord	E	F		G♯	A					
Octatonic-2 segment	E	F	G	G♯		A♯	B		D	E

After the parallel period, the melodic idea (based on several motivic elements) of section A descends sequentially in the C major tonal area (mm. 18-20). This is followed by the four-measures of descending dyads. The harmony arrives and stays in half-diminished-seventh (B-D-F-A), which serves a dominant-like function. Furthermore, the half-diminished-seventh chord resolves to A in the next phrase (mm. 25-32), which is also the submediant of C. In retrospect, the harmonic design is really a descending idea in the local sequence of tonalities, i.e., the V7/IV (at m. 18), vii ø7 (mm. 21-24) to VI

(mm. 25 ff) actually displays the descent in the bass line from C and B to A. On the other hand, the modal construction is in A Arab-Phrygian, A-B♭-C♯-D-E-F-G-A (at mm. 25-27), which also provides the evidence of Phrygian modal variation by the raised-third degree. Furthermore, the modal combination extends to four sets of modal-variants in upper and lower tetrachord construction (A-B♭-C♯-D, A-B♭-C-D, E-F-G-A, and E-F-G♯-A, see Figure 8) and each of them could be paired in various upper-lower tetrachord combinations; as a result, the altered C/C♯ and G/G♯ create a chromatic effect and folk music atmosphere.

Figure 8: Four Sets of Modal-Variants and Possibilities of Combination.

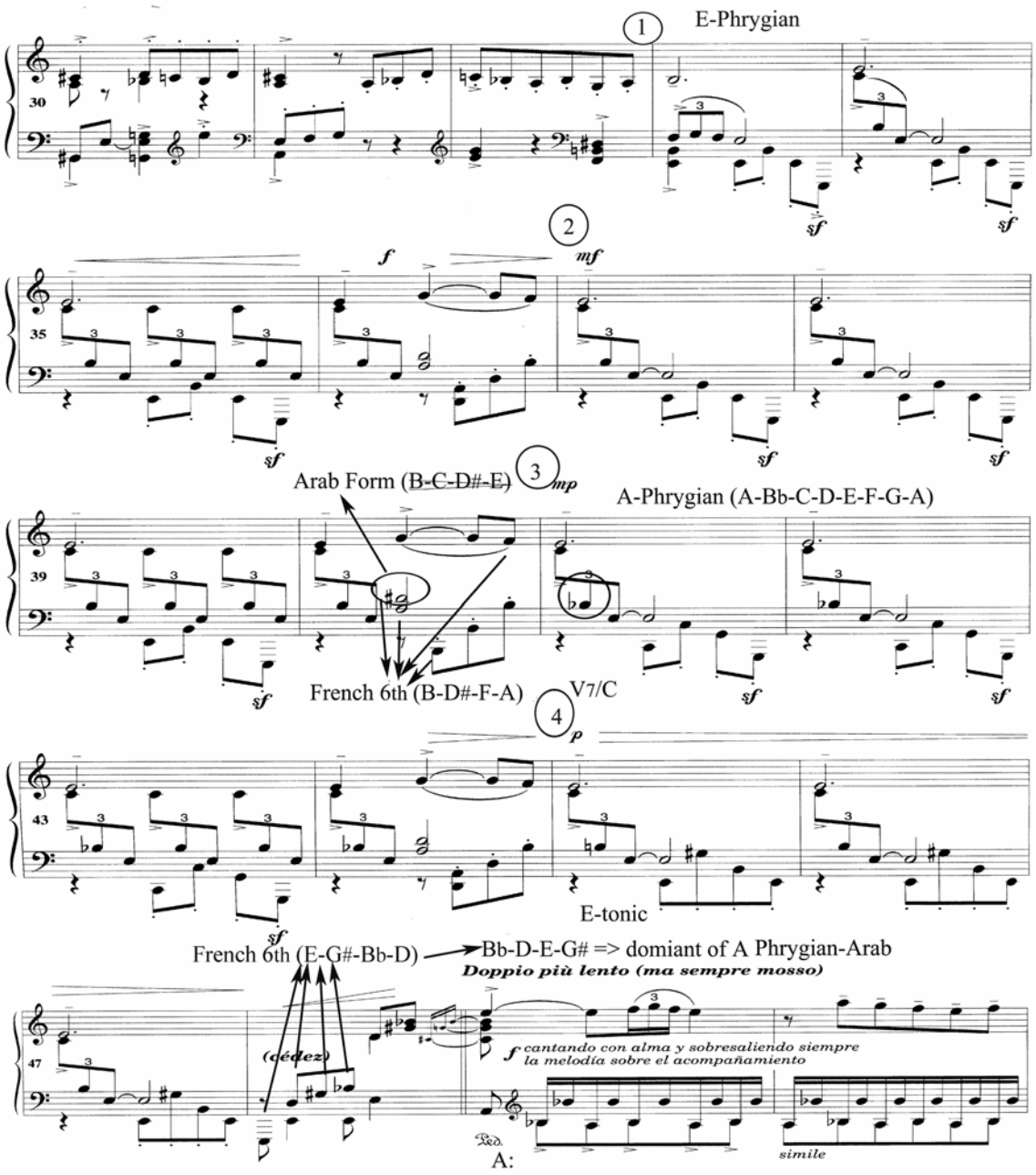


Even though the A modal-variants predominate in the phrase (mm. 25-32), the tonal center takes us to E tonic in the following section by using a French-sixth of A (F-A-B- D♯), which later resolves to the dominant of A (that is, E tonal area, at m. 33). Thus, the D♯, which first seems to be outside of the content of the A modal-variants, is actually a preparation for the following E-tonic section, i.e., E minor or E Phrygian-Arab mode, although its function is part of the French-sixth of A.

The following section (mm. 33-48) is based on four segments, each of them constructed in a four-measure unit with identical rhythmic materials. However, the harmonic motion in each unit diverges from the others by means of modulatory anticipation of the succeeding unit. On the other hand, two successive units overlap with

each other, that is, the ending note of the previous unit is also the beginning of the next unit (see Example 20 for the following analysis).

Example 20: “Andaluza” (mm. 33-50).



The first unit (mm. 33-36) resides in the diatonic notes of white keys; both the strong bass figures and the ending of the melodic line on E may suggest the modality of E-Phrygian. The second unit (mm. 37-40) is nearly identical with the previous one; however, the D♯ (at m. 40) replaces the D in its corresponding position. Consequently it characterizes the sonority of the upper tetrachord in the E-modes to produce the Arab form (B-C-D♯-E). On the other hand, the D♯ (at m. 40) also contributes to the French-sixth of A (B-D♯-F-A) which emphasizes the leading tone that resolves to the C-dominant-seventh chord. In the third unit (mm. 41-44), the B♭ replaces the B in its corresponding position in the first and second units. As a result, the B♭ may suggest the mode of A-Phrygian (A-B♭-C-D-E-F-G-A). Thus far, these micro-changes (D to D♯, B to B♭) are essential in establishing the mode on A and E so fundamental throughout.

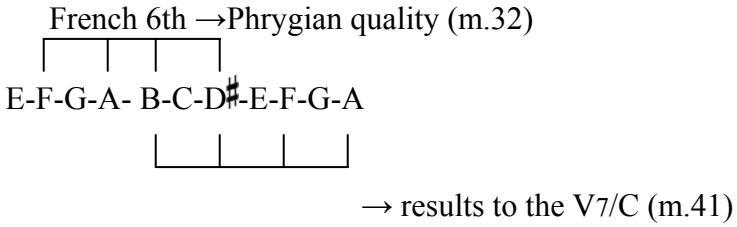
From another point of view, the F-French-sixth (at m. 40) really resolves to its own dominant-seventh, C-E-G-B♭ (at m. 41). In short, the C-dominant-seventh chord in the third unit (at m. 41) is nothing more than a segment of the A-Phrygian mode, a kind of color echo of it. While it tends to micro-tonicize the French-sixth of A, it is ultimately the linear voice leading that prevails here, so that the B♭ of C-dominant-seventh contributes to the resolution to E major when the B♭ moves up to B (in m. 45). This reinforces the linear motion of the D♯ of the F-French-sixth of A (B-D♯-F-A), this note pulling to the E tonic degree. Thus, the two degrees (D♯ and B♭) both serve this E tonic function.

The appearance of G♯ and B♮ in the fourth unit (mm. 45-48), brings the tonal center to the tonic of E (E-G♯-B), which the recalls the opening chord. The four units in the second part of section A are really the reworking of all the tonal collections used in the first part of section A, i.e., E-Phrygian, E-Arab, A-Phrygian and opening E-tonic chord. While A and E are basic tones, these progressions and alterations of degrees

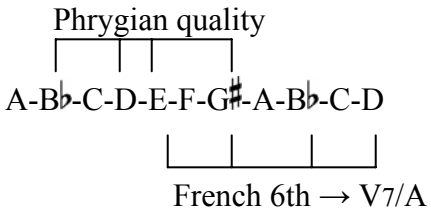
establish a highly coloristic modal context that defines the traditional motion of a tonic (A) and its related fifth (E). The specific alterations are those degrees (flat-second, raised-seventh, etc), so characteristic of Spanish music influenced by the folk modes. Nevertheless, the altered notes (at m. 48) from the third and fourth units (i.e., B♭ from the third unit and G♯ from the fourth unit) in company with E and D assemble two tritones superimposed with each other to form another French-sixth. These four notes-E, G♯, B♭ and D also could be seen as the extraction from A Phrygian-Arab mode (A-B♭-C-D-E-F-G♯-A) which is apparent in the end of the first section (mm. 25-32). The same is true for the later French-sixth of A (F-A-B-D♯) that belongs to the E Phrygian-Arab (E-F-G-A-B-C-D♯-E) in the same way (Figure 9). In the former case, the position of F-A-B-D♯ (at m. 32) emphasizes the Phrygian quality, i.e., second degree; and the position of B-D♯-F-A (at m. 40) accentuates the leading tone which results to the C dominant-seventh chord. In the present case, the position of E-G♯-B♭-D emphasizes the dominant, but has the potential for emphasizing the Phrygian as well, B♭-D-E-G♯ being implied. Thus, both sections (mm. 1-32 and 33-48) end with A-mode criteria and foreshadow the tonal area in the subsequent section. For instance, the first section ends with A-modal variants at mm.25-32; the French-sixth of D (E-G♯-B♭-D) plays the role as the dominant of A Phrygian-Arab and brings back to the tonic of A in the following section.

Figure 9: Two French-Sixth Chords in Harmonic Contexts.

(a) E Phrygian-Arab (mm. 32 and 40)



(b) A Phrygian-Arab (m. 48)



SECTION B

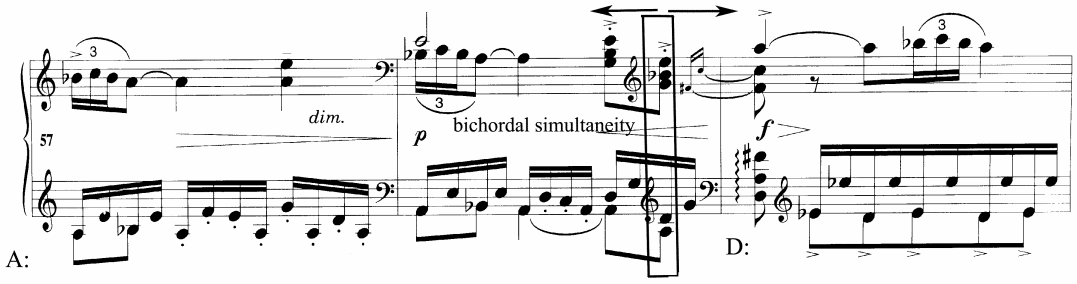
The formal outline of section B is demonstrated in Table 20. The bass continues to alternate A and B♭ mostly throughout the first phrase in section B (mm. 49-58). Moreover, the ending note on A (at m. 57) in the *cante-jondo* melody and the linear B♭ as pedal note (flat-second degree evident in the Phrygian mode) suggest the modality of A-Phrygian (A-B♭-C-D-E-F-G-A). Moreover, the chord on the third beat (at m. 58) uses A-D as bass notes, with the upper line (R.H.) emphasizes a diminished-triad (E-G-B♭) which produces the tonal-modal ambiguity. On the other hand, the bichordal simultaneity, A-D and E-G-B♭ (see Example 21) is really the fragment of A-Phrygian (A-

B♭-C-D-E-F-G-A). At this point, some harmonic duality may also be interpreted (i.e., A or D modal/tonal areas). This represents the preceding A-mode area and foreshadows the succeeding D-mode area.

Table 20: "Andaluza." Section B. Outline.

	Copla (*cante-jondo*)			Interlude
mm.	49-58	59-72		73-80
tonal center	A-Phrygian	D-modal variants	Octatonic0/ Wholetone-0	D-Phrygian

Example 21: "Andaluza" (mm. 57-59)



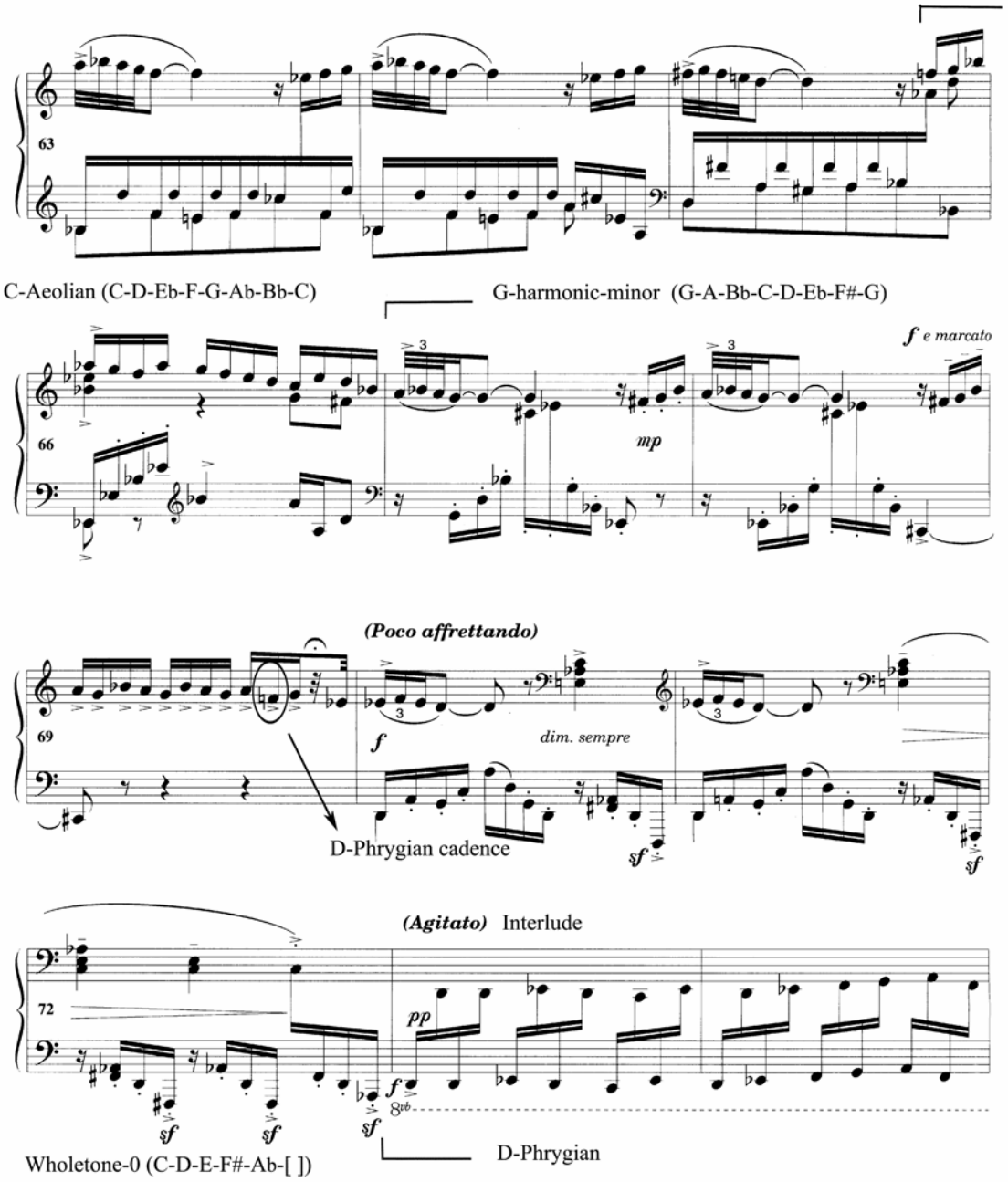
The first part of the second phrase (mm. 59-65) is similar to the previous one in the A tonal area (mm. 51-58). However, the alternating D-E♭ displayed in the bass, along with the ending note on D (at m. 65) in the *cante-jondo* melody and the linear E♭ as pedal note (flat-second degree evident in the D-Phrygian mode), suggest D-Phrygian (D-E♭-F-G-A-B♭-C-D). Furthermore, this time the melodic and accompanying lines insert F♯ and C♯ creating the D modal-variants in Arab form in upper and lower tetrachord construction (i.e., D-E♭-F♯-G and A-B♭-C♯-D).

The melodic line on the top voice (the pick-up into m. 66 and up to m. 72) presents shifting modal tonics first with C-Aeolian, C-D-E♭-F-G-A♭-B♭-C (pick-up into m. 66), then G harmonic-minor, G-A-B♭-C-D-E♭-F♯-G (mm. 67-69, beat two), but suddenly mutates with F to bring us to a D-Phrygian cadence (m. 70), see Example 22. These shifting tonalities are articulated by the triplet rhythmic figures. What make this unstable progression so connected, despite the sudden changes of modal content, are the figures in counterpoint to the leaner melodic line. For instance, at the C-Aeolian mode (m. 66), the A natural produces a cross relation with the melodic A♭ (seventh-degree) to thrust the sense of mode to the first main cadential figure on G. The A, then D, F♯ (third beat at m.66) produces an almost a functional sense of V of G. Such local emphasis on these suggested functional (in G) produces a modal shift as well. With the resolution to the G tonic (mm. 67-69, beat two), the dominant D-F♯-A produces a raised modal second (A), now in the tonality of G harmonic-minor. Thus the overlapping A and D F♯ with the C tonic almost conceal the joint in the mutation toward the modal change. Ultimately, these unstable shifts are no more then diversions in the primary modal tonality of D-Phrygian (mm. 59 ff), especially in the Arab form, D-E♭-F♯-G-A-B♭-C-D.

It is striking that the content of the D Arab-Phrygian contains the potential for all of these modal-tonal shifts. By way of a kind of rotational principle, if we rotate D Arab-Phrygian (D-E♭-F♯-G-A-B♭-C-D) to C-Aeolian, the entire D modal content (except for the F♯ and A) serves that modal tonality (C-D-E♭-[F♯]-G-[A]-B♭-C). At the same time, if we rotate to G harmonic-minor, the entire D modal content, now using the F♯ as a leading-tone stabilizer of G, serves to establish G-A-B♭-C-D-E♭-F♯-G, which produce the harmonic-minor. From a larger point of view, however the modal tonalities rotate from D Arab-Phrygian to G Phrygian-Arab and back to D Arab-Phrygian by surpassing the C-Aeolian and G harmonic-minor. Thus, all of these shifting modal tonalities produce, on

the one hand changes and varieties and, on the other, a smoothly interlocking stream of modal-tonal progressions.

Example 22: “Andaluza” (mm. 63-74).



The arrival at D-mode (mm. 70-72) contains not only D Arab-Phrygian and D-Phrygian, but also chromatic inflections in the surrounding melodic and harmonic materials. The chord (E-A♭-C) provides the tritone, A♭, and the raised-second degree, E, while the left hand reiterates the raised Arab third degree, F♯. These three tones (E, F♯, and A♭) imply the presence of a WT-0 (C-D-E-F♯-A♭-[ ]) infusion into the mode (see Table 21). Consequently, a sense of polymodal chromaticism is produced.

Table 21: "Andaluza." Polymodal Combination (mm. 59-80).

polymodal combination	D	E♭	E♮	F	F♯	G	A♭	A	B♭	C	D
D Arab-Phrygian	D	E♭			F♯	G		A	B♭	C	D
D-Phrygian	D	E♭		F		G		A	B♭	C	D
Wholetone-0, m. 72	D		E		F♯		A♭			C	

The ostinato-like pattern in the *Agitato* section (mm. 73-80) is a melodic reference to the opening theme, and the tonal center gradually returns to the D-Phrygian (D-E♭-F-G-A-B♭-C-D) after the elaboration (at mm. 65-72) by means of the tonal modality of shifting modal tonics, i.e., first with C-Aeolian (at m. 66), then G harmonic-minor, G-A-B♭-C-D-E♭-F♯-G (at mm. 67-69). The melody ends on D (at m. 65) and then fluctuates until the firm settlement on D (at mm. 70 ff).

In short, the modal tonalities start with a single mode, A-Phrygian (at mm. 49-58), and then move to the dominant of A, but with some chromatic embellishments and fluctuations of the notes. As a result, the modal tonalities revealed in the D-modal variants (mm. 58 ff) and later the melodic line on the top voice present shifting modal tonics first with C-Aeolian, C-D-E♭-F-G-A♭-B♭-C (pick-up into m. 66), then G harmonic-

minor, G-A-B♭-C-D-E♭-F♯-G (mm. 67-69, beat 2), but suddenly mutates with F to bring us to a D-Phrygian cadence (at m. 70). Eventually, the polymodal chromaticism narrows down to one single mode, D-Phrygian (at mm. 73-80). Though the tonal center seems to be transparent, the ostinato-like rhythm creates the agitated feeling and gives us another characteristic of Spanish music- a virtuous exhibition of the pounding of the heels by the Flamenco dancers.[23]

SECTION C

Section C is outlined by three phrasal structures, see Table 22. A gradual progression of combined chords (mm. 81-88), the content of which outlines impure octatonic collections (Octatonic-0: C-D-E♭-F-F♯-A♭-A♮-B and Octatonic-1: C♯-E♭-E♮-F♯-G-A-B♭-C), i.e., with added sevenths or ninths, is responsible for the density of the texture and tonality throughout most part of section C (mm. 81-98). These impure elements (D and F) are a continuation of Octatonic-0, which is now overlapped by Octatonic-1 in the melodic line. In the first part of section C (mm. 81-88), while a new melodic line appears in the treble clef, the bass not only represents the opening melodic theme in syncopated rhythm, but also adopts the similar technique (i.e., broken octaves) used in the beginning of section B. On the other hand, the rhythm occurs in syncopated structures from measure 81 and builds up dynamically, which corresponds with the expansion of the compound chords.

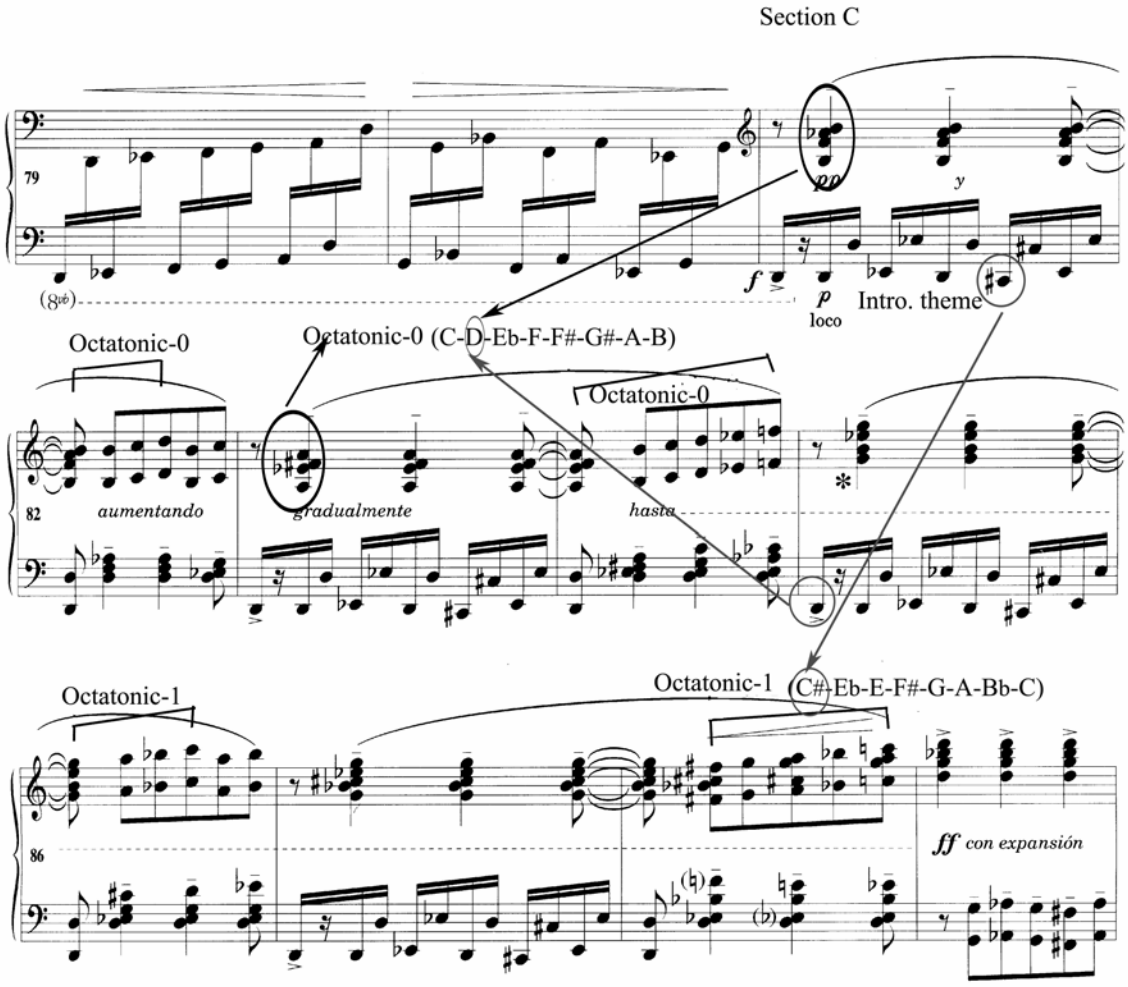
[23] Antonio Iglesias, *Manuel de Falla: Su Obra Para Piano*, (Madrid: Alpuerto, 1983), p. 124.

Table 22: “Andaluza.” Section C. Outline.

	antecedent + consequent		antecedent + consequent		extension
mm.	81-84	85-88	89-92	93-99	99-106
tonal center	D		G		G-E

In the antecedent of the phrase (mm. 81-84), two diminished-seventh chords in the treble clef (D-F-A♭-B at m. 81 and F♯-A-C-E♭ at m. 83) outline the tonal construction. As a result, we get the Octatonic-0 (C-D-E♭-F-F♯-A♭-A♮-B) by interlocking these two diminished-seventh chords. The melodic line in the top voice also supports the outline of Octatonic-0, i.e. ascending melodic contour B-C-D (at m. 82) and A-B-C-D-E♭-F (at m. 84), see Example 23. On the other hand, the melodic line in the consequent phrase (mm. 85-88) suggests the outline of Octatonic-1 (i.e., ascending melodic contour G-A-B♭-C at m. 86 and F♯-G-A-B♭-C at m. 88). The broken octave in the bass line uses D as the pivot point, and which is encircled by half-steps (i.e., E♭ and C♯). The C♯ in the bass against Octatonic-0 (C-D-E♭-F-F♯-A♭-A♮-B) actually foreshadows and belongs to Octatonic-1 (C♯-E♭-E♮-F♯-G-A-B♭-C); the prevailing D in the bass against the Octatonic-1 comes from Octatonic-0. The modal design of this section really produces the tonal instability and uncertainty.

Example 23: “Andaluza” (mm. 79-89).



The circling melodic line in the treble clef is based on sequential patterns and eventually leads to the G minor triad (at m. 89). The ascending melodic contour, F♯-G-A-B♭-C (at m. 88), culminates a whole-step C to D, that is parallel to A-B-C-D-E♭-F (at m. 84) ascending to G (at m. 85) in transposition. What is significant about this compositional design is that the two ascending lines actually transform into the modal constructions directly and make the phrases first seem simply as sequential to one to the

other, but actually they are connected smoothly by the design of the modal constructions (i.e., the A-B-C-D-E♭-F of the Octatonic-0 directly moves to the G of Octatonic-1, and the F♯-G-A-B♭-C of the Octatonic-1 directly goes to the D of G-Phrygian for the following part).

The opening theme in alternating hands in the bass line gradually builds to fortissimo (at m. 89); from that point the bass displays a fragment of the opening theme but in octaves instead of broken octaves. However, the tonal area may suggest in G according to the strong G minor triad in the treble clef as well as the pedal point in the bass (mm. 89 ff). The bass line adopts the same technique used in the previous phrase; i.e., the broken octave in the bass line uses D as the pivot point, and is encircled by its half-steps, E♭ and C♯. Relatively, the bass in this phrase (mm. 89-98) takes G as the pivot point and is encircled by A♭ and F♯. The treble line outlines by G-Phrygian, G-A♭-B♭-C-D-E♭-F-G. However, the prevailing F♯ and another note outside of the content of G-Phrygian in the bass line, A (at m. 98) together color as an inflection of G-Phrygian, so essential a characteristic of Spanish folk music.

Even though the tonal center is G, there is no actual cadence in this phrase (mm. 89-99). The melodic line encircles with sequential patterns that create continuity. The phrase ends on the inverted diminished-seventh chord of G in enharmonic spelling, F♯-A-C-D♯, (at m. 99), since it will serve as a common pivot to E minor (mm. 103 ff). Its function in G signals the arrival of the dominant. What is striking about the tonal areas in these two phrases in section C (mm. 81-88 and 89-98) is that what seemed irrelevant among all these modal constructions, i.e., Octatonic-0, C-D-E♭-F-F♯-A♭-A♮-B (at mm. 81-84), Octatonic-1, C♯-E♭-E♮-F♯-G-A-B♭-C (at mm. 85-88) and G-Phrygian with Arab inflection (F♯) in the upper tetrachord, G-A♭-B♭-C-D-E♭-F-F♯-G (at mm. 89-99), is

actually linked by the diminished-seventh chord, F♯-A-C-D♯ (=E♭), which is also the climax of the section C (Table 23).

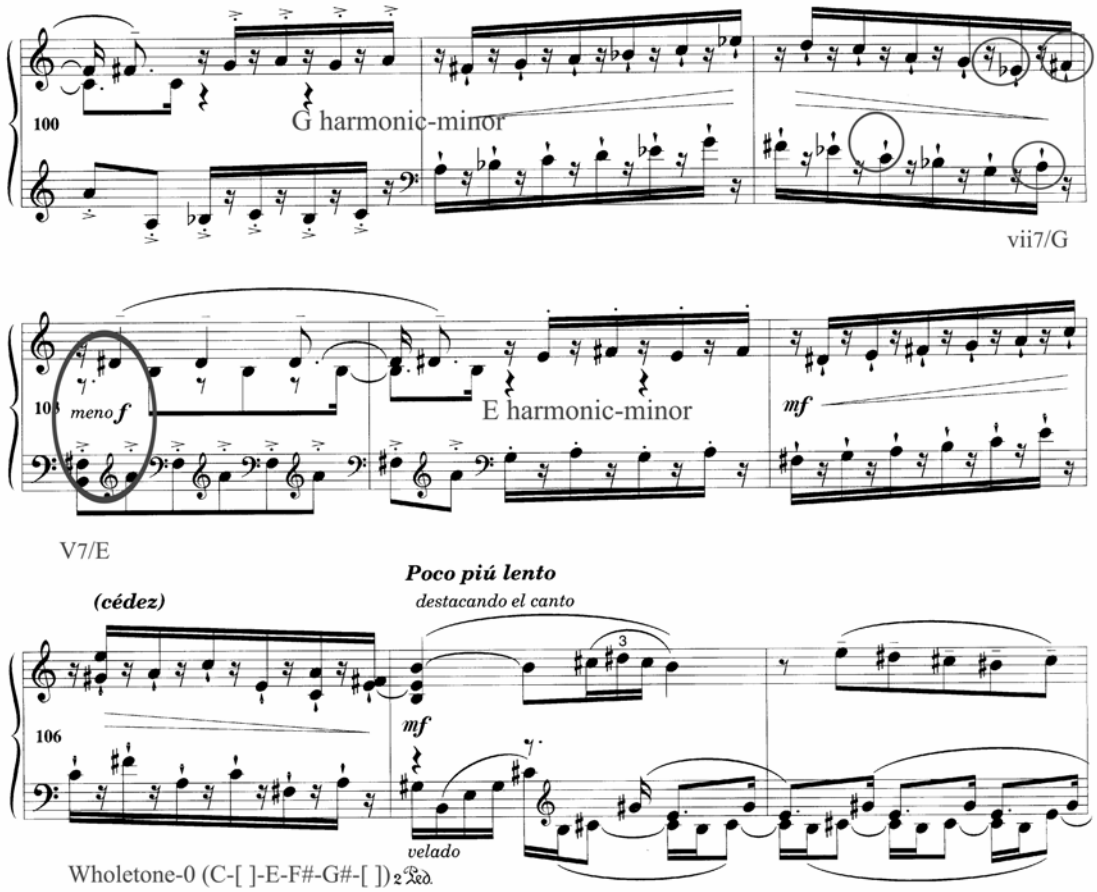
Table 23: "Andaluza." Modal Constructions in Section C (mm. 81-99).

Octatonic-0 (mm. 80-84)	C		D	D♯		F	F♯		A♭	A		B
Octatonic-1 (mm. 85-88)	C	C♯		D♯	E		F♯	G		A	B♭	
G-Phrygian with Arab inflection (F♯) in the upper tetrachord (mm. 89-99)	C		D	D♯		F	(F♯)	G	A♭		B♭	
diminished 7th chord (m. 99, first beat)	C			D♯			F♯			A		

The dynamic indication suggests *pp et en augmentant graduellement jusqu'à ff avec expansion* (mm. 81-90) which corresponds with the growing density of modality and thematic materials. Furthermore, the modal constructions also accumulate vertically, i.e., the chords on both treble and bass clefs at measure 88 unfold the entire Octatonic-1 (see also Example 23). The idea of such a compositional procedure is that an unfolding non-diatonic scale may be based on the design over one or more chords (i.e., both chords on the treble clef at mm. 81 and 83 collect the entire Octatonic-0). On the other hand, the non-diatonic scale is really accumulating towards the end of the phrase in order to create density (for instance, m. 88).

The modal density loosens after the conglomerate of the non-diatonic scale (at m. 89). As a result, the tonal modality narrows down to the G-Phrygian with Arab augmented second (E♭ and F♯) in the upper tetrachord (mm. 89-99). The climax of the piece occurs at measure 89 with all the octave chords, and *fff* by measure 99. The *fff* chord is on the diminished-seventh chord of G in enharmonic spelling (F♯-A-C-D♯), or dominant function. This is followed by the ostinato-like passage in G harmonic-minor (mm. 99-102).

Example 24: "Andaluza" (mm. 100-108).



The harmony later shifts from the vii7 of G (F♯-A-C-E♭/D♯) to V7 of E (B-D♯-F♯-A), as C is replaced by the new root B (at m.103, see Example 24). The E harmonic-minor scale then appears (at mm. 103-106). Such a design speeds up modulation, which results in thematic continuity. However, G♯ (at m. 106) is not in the content of the E harmonic-minor scale, but rather foreshadows and belongs to the forthcoming tonal area. On the other hand, if we unfold all the notes (at m. 106, except for the A), a segment of WT-0 (C-[ ]-E-F♯-G♯-[ ]) is implied. In retrospect of WT-0 (C-D-E-F♯-G♯-[ ]), which serves as the bridge from the D-modal variants (with other passing modal colors, mm. 65-72) to the single mode of D-Phrygian in the ostinato-like interlude (mm. 73-80), the partial WT-0 (m. 106) also serves as a linkage from the ostinato-like passages (mm. 99-106) to the following B′ section.

SECTION B′

The tonal center of section B′ is an ambiguous E; the melody seems to have a semi-cadence on B (at m. 113), but no actual cadence in terms of harmonic progression. Furthermore, the whole section transcends the *cante-jondo* melody from the B section into a thirteen-measure phrase. The melodic contour is curved with small turns and half-step descents (i.e., mm. 111-113), and maintains a narrow interval range of G♯-B. Both are characteristic of Spanish music. The extending and descending melodic contours are reflected in the bass line. Thus, the intervals move from B-C♯ (mm. 107-108), B-E (mm. 109-110), B-F♯ (m. 111), B-E and B-D♯ (m.112), and finally back to B-C♯ (m. 113).

The B bass-note serves a quasi pedal function in this phrase. It may also suggest that the tonal center is B or B-related tonal area, i.e., as the dominant of E, though the actual ending of the phrase on E in the melodic line does not occur until measure125. In

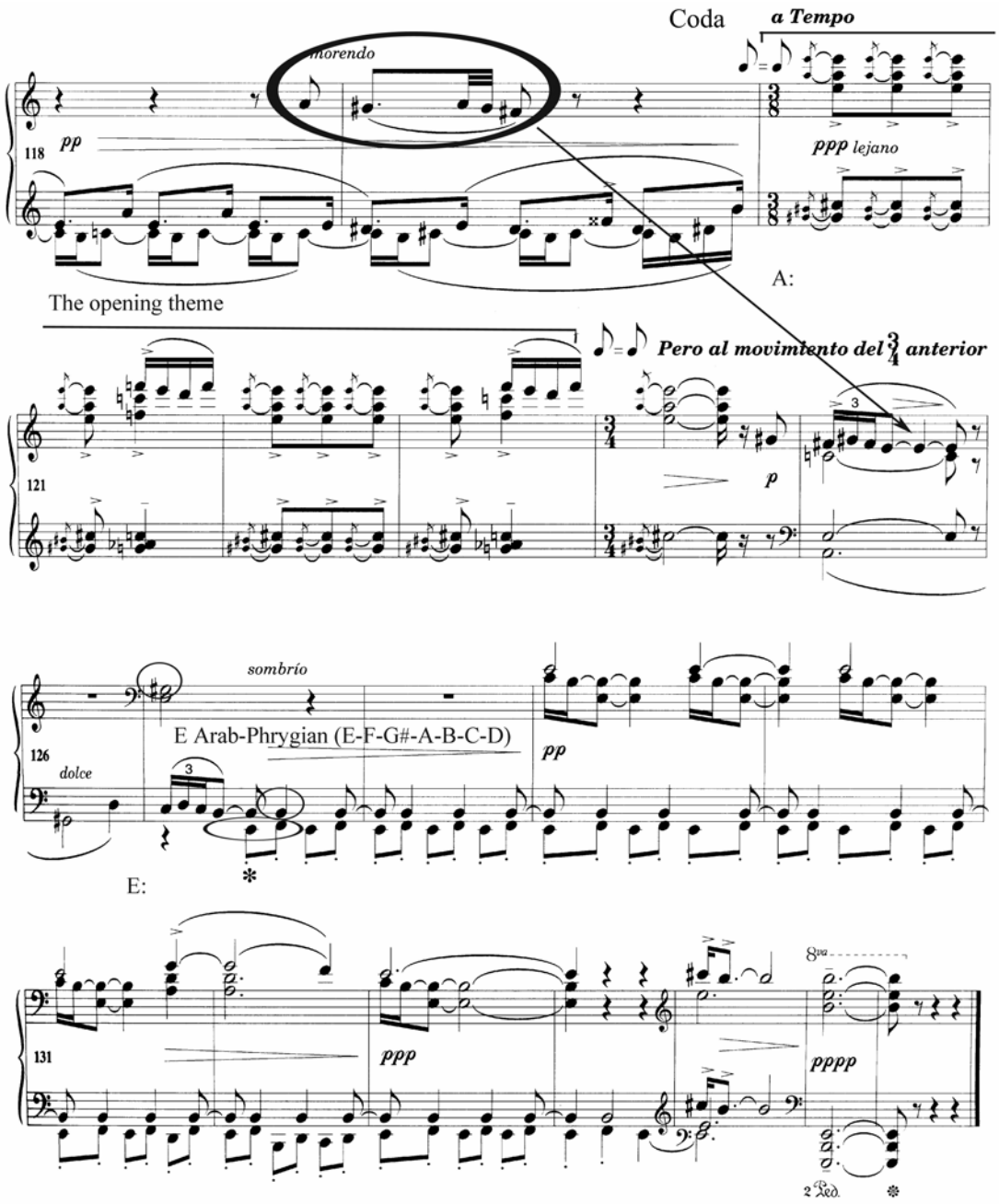
retrospect, the G♯ confirms the E-major tonic triad in the opening statement against the other modal elements, such as the E-modal variants and Octatonic-2 (E-F-G-G♯-A♯-B-C♯-D). Thus far, the G♯ actually transfers the tonal center from E harmonic-minor at the end of section C to the E major or modal center in section B′. The focal point of the G♯ is that it plays a prominent role in confirming and transforming the tonal modalities. For instance, it confirms the E-major tonic triad in the opening statement against the other E-modal variants and Octatonic-2, and then changes its meaning as the leading tone of A. This produces the A-Arab sonority, A-B♭-C♯-D-E-F-G♯-A, with two augmented seconds, (mm. 25-32). In the last measure of section A (m. 48), G♯ in the French-sixth chord (E-G♯-B♭-D) brings the tonal center into the orbit of A by infusing the French-sixth chord with a dominant function, given that the mode is A-Phrygian rather then A major or minor. After the polymodal combinations in section B and C, the G♯, first in the WT-0 (at m. 72) leads the tonal center to D-Phrygian, and later changes the tonal content from E harmonic-minor into the WT-0 (at m. 106), to take us back to the E tonal center.

CODA

The Coda (mm. 120-137, see Example 25) summarizes the entire piece with the appearance of the opening four-measure unit (mm. 120-124), the triplet-figure ending from section B′ (m. 125) and the ostinato-like bass which is a reminiscence of the bass motive in section B, C, and B′ (mm. 127-133). The opening theme is recalled (at mm. 120-124) by means of identical rhythm and melody. However, the chord is built on an extended A-tonic instead of E-tonic chord. The tonic A major chord is constructed with extended seventh degree G♯ as the bass. The A-tonic chord is embellished in typical

Spanish style by a grace-note chord, B♯, as leading tone to the third degree. The interrupted B′-section melody (at m. 119) finally resolves to E in the Coda (at m. 125).

Example 25: “Andaluza” (mm. 118-137).



Moreover, it resembles the color of the ascending A melodic minor scale. Thus far, the manipulation of the A tonal area creates a local feeling of major-minor tonality. The tonal center comes back to E tonic (mm. 127-134) by the E-F ostinato bass and B pedal-point; however, the G♯ (at m. 127) and F as part of the ostinato bass create the atmosphere of E Arab-Phrygian modal combination (E-F-G♯-A-B-C-D-E). On the other hand, the C♯ interrupts (at m. 135), which adds the color of a chromatic embellishment. The final chord of this piece is based on an E-tonic chord, except for the missing third degree, G♯, which gives the ending an ambiguous tonal color. Thus, the tonal area seems to come down to one single E-mode in the end, but with uncertainty and instability, which reflects fluctuating and shifting between notes throughout the piece, such as the third degree of the tonic (i.e., G and G♯ in E).

One other detail seems significant. All the tonal centers used in the "Andaluza" actually unfold the chord of the open guitar string, E-A-D-G-B-E (i.e., E in section A; A and D in section B; D and G in section A; ambiguous E with coloring B in section B′; and finally E in the end of the piece). The use of open strings of the guitar form is a typical Andalusian idiom. Falla unfolded the open string chord into a larger tonal content that contribute to the arch-shape of this piece.

Chapter 6: Conclusion

Modal variants derived from Falla's native folk-music sources not only portray the Andalusian atmosphere (e.g., the Phrygian, Arab and Gypsy modes), but they also provide various possibilities for modal transformation. It was found in this study that Falla's compositional processes employed in this transformation included the permutation (by rotation) of the modal components, extension of the modal structure, and perhaps most significantly the combination (and also juxtaposition) of the modes to produce what was known as polymodal chromaticism. The most significant of these modal transformations applied in Falla's *Cuatro Piezas Españoles* are various hybrid modal types, the free use of the pentatonic scale, the heptatonic modal permutations of the diatonic scale, and cyclic-interval scales, for instance, wholetone and octatonic.

The music of the traditional tonal system of the eighteenth and nineteenth centuries is founded primarily on the major-minor functional system. The chromatic music of Romantic era was based on hierarchal pitch relations within the chromatic continuum and maintained functional harmonic progression. While Falla was trained and still under the influence of traditional functional progressions in his early years, his *Cuatro Piezas Españoles* reveals some infusion of modal tonality into his functional harmonic context. This led to a new concept of diatonicism, which weakened the tonal gravity of any hierarchical pitch relations. Each piece of *Cuatro Piezas Españoles* is unique in its various characteristics found in different regions or in specific dances of Spain, and each is distinct in its compositional process based on interactions of Spanish folk modes and their transformations and combinations. This study discloses analytical

aspects that point toward Falla's ability at this time to manipulate his new musical language by a freer use of modal transformations and a move beyond functional tonality.

"Aragonesa" displays the energetic character of a *jota* folk theme by applying the *jota* rhythm in the descending triplet figure which appears fairly often throughout the piece. The single tones, chords, or scales have multiple harmonic meanings. More specifically, the usage of dominant-tonic and common chord modulation in functional tonal progressions is implemented in a new way, i.e., the diminished-seventh chords play the role as common chord, shifting and filling in the octatonic collections; two whole-tone collections serve as common-chord function filling in the D Phrygian-Arab mode and D major. In the latter case, what seemed chromatic at first, i.e., unfolding a compassed hybrid collection, is essentially hidden by the whole-tone scales that fill in the diatonic scales.

"Cubana" is based on two dance rhythms. The Latin American *guajira* rhythm combines 3/4 and 6/8 meters both alternatively and simultaneously between two hands. Another Andalusian heel dance rhythm, *zapateado*, is also written in 6/8 meter with various vertical accents. In addition to the dance rhythms, the prelude introduces a strummed guitar figuration, which pervades the accompaniment throughout the piece. The rotational relation between two diatonic modes (i.e., A-major/E-Mixolydian and C-major/G-Mixolydian) is an essential means of rotating the original tonal/modal constructions into a contemporary context based on modal diversity. Moreover, the tonic-dominant concept (for example, A major and E-Mixolydian) is weakened by modal infusion. For instance, the chord, E-G♯-B-D, does not function as the dominant-seventh of A major, but rather as the tonic-seventh of the E-Mixolydian mode. A significant non-diatonic mode common in many parts of Europe plays a prominent role in the middle section; it creates a concept that is more complex and modern. This perhaps provides

evidence that Falla attempted on the one hand to experience and move toward modal tonality and non-diatonic modal serialism, and on the other, still maintain the sense of traditional functional tonality. In general, the harmonic relationship belongs to the nineteenth century, but asserts the modal quality in a polymodal context.

"Montañesa" is a rare example in which Falla actually incorporated folk tunes into his composition rather than creating folkloric color by merely using rhythm, modes, and so on. Moreover, this is the most "impressionistic" piece of the set. Although the B-pentatonic scale is the nucleus, the tonic B seems to be weakened by emphasis on different pentatonic notes. Even though various modal expansions are produced by adding the second and/or sixth pentatonic degrees, the impressionistic atmosphere is created by emphasizing the pentatonic notes by their modal colorings. The modulatory procedure of the middle section is basic to the organic process; it increases the "modal" (pentatonic, diatonic and wholetone) density by means of shifting, combining, and articulating various collections and tonalities before returning to the simpler, singular modal-tonality of the opening. In this piece, functional tonality is less evident than in the previous two pieces.

In "Andaluza" we could find all the characteristics of Andalusian music, such as flamenco dance, guitar figuration, and *cante-jondo* melody. Even though the compound modal scale used in the A section gives almost the entire chromatic scale, polymodal combination is obvious and provides the basic coloring inherent in this idiom. This piece is exemplary of the E-modal variants and their combination and transformation discussed in Chapter I. Thus, all of these shifting modal tonalities produce, on the one hand, change and variety and, on the other, a smoothly interlocking stream of modal-tonal progressions.

In many analyses of Falla's *Cuatro Piezas Españoles*, the focus has often been on the composer's applications of the general characteristics of Spanish folk music rather than the use of significant analytical terminology (e.g., diatonic and octatonic scales) to understand his compositional process. Some analysts have also pointed to the use of Louis Lucas' theory by Falla in the early stage of this work.[24] These transformations are highly varied in each piece. The ultimate result of this study is the discovery of a new musical language that captures the quality of Spanish folk music by means of special modal transformations and combinations.

[24] Falla's theory of *natural resonance* appears to be based on the treatise by Louis Lucas, *L'Acoustic Naturelle*. "The technique of *natural resonance* is based upon a recognition of the harmonics of the fundamental tone as the essential notes in the harmony, and of proceeding from this to treating the harmonic as the new fundamental." The first significant work in which Falla began to apply the technique was *Siete canciones populares españoles* (Seven Popular Spanish Songs, 1914-1915). See Burnett James, *Manuel de Falla and the Spanish Musical Renaissance*, pp. 76-77. According to Nancy Lee Harper, in her *Manuel de Falla: His Life and Music*, pp. 31-33 and 201. Falla was presumed to be concretely developing these ideas as early as his *Cuatro Pièces Españoles*. For a more detailed discussion about Lucas' theory, see Harper's Chapter 11.

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Vita

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